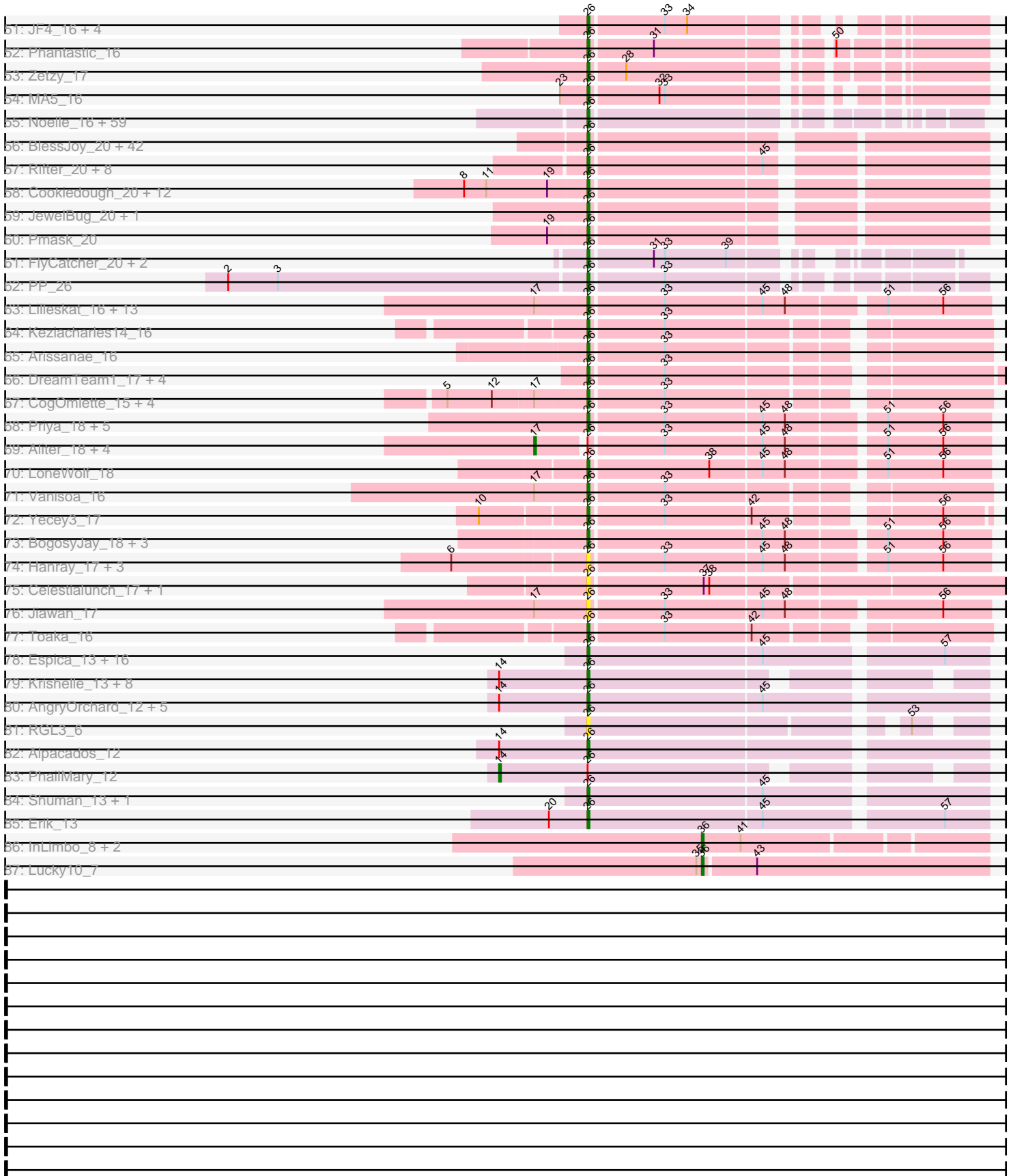


Pham 311033



Pham 311033



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 311033 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311033 has 647 members, 76 are drafts.

Phages represented in each track:

- Track 1 : Goose\_16, Eaglepride\_17, Scamp\_16, BubbleTrouble\_16, Baby16\_16, RhynO\_17, Huxley\_16, Spino\_16, Chiqui\_15, Roosevelt\_16, Kremtemulon\_16, Romney\_16, Taquarus\_16, Kyee\_16, Rebeuca\_17, Pipcraft\_16, Maverick\_16, Cocoaberry\_16, Houdini22\_16, NorthStar\_16, Eagle\_15, ChampagnePapi\_16, Commander\_16, Bombshell\_16, Mayonnaise\_16, CentreCat\_16, Ulysses\_15, SenorClean\_16, Chaph\_16, Connomayer\_16, KFPoly\_16, DontArgue\_15, BangNhom\_15, Obama12\_16, Phacado\_16, Koan\_16, Funston\_16, Chupacabra\_16, OKCentral2016\_16, Wizard007\_16, Shaka\_16, Deano\_16, LHTSCC\_16, Annyong\_16, MeeZee\_16, Medusa\_16, Cerulean\_16, Gadost\_16, NotAPhaseMom\_16, Sultana\_16, Dhanush\_16, DustyMartin\_19, Pumbaa\_16, Bartimeaus\_16, Morrow\_16, Blackmoor\_16, Bruiser\_16, Happiness\_16, Shapes\_19, Eros\_16, Burger\_15, Iracema64\_16, Albee\_16, Flux\_16, Anthony\_16, Palestino\_16, Caelakin\_16, Stasia\_17, KekoraPapaka\_15, Twister\_16, JoongJeon\_16, Melvin\_16, LochMonster\_16, Citius\_16, BabyJohn\_15, RockieBear\_15, Millski\_16, Avle17\_16, Phelipe\_16, Mazhar510\_16, Topanga\_16, WalterMcMickey\_16, Eris\_16, Thanksgivukkah\_16, Cintron\_16, SteMason\_16, Broseidon\_16, Druantia\_16, Lorenzo\_16, SheldonCooper\_16, Kratark\_16, Kristoff\_17, Rowdy\_19, Kingmustik0402\_16, PeterPeter\_16, Nemo27\_16, LittleB\_16, Edison31\_16, Phighter1804\_16, Wander\_16, Trike\_14, DirtyDunning\_16, TroyPia\_16, Wilbur\_16
- Track 2 : PeaceMeal1\_15, DroogsArmy\_17, HINdeR\_16, Severus\_15, Drake94\_15, KittenMittens\_15, Poompha\_15, Timshel\_17
- Track 3 : Munch\_17, Salz\_17, Lucivia\_17, Orange\_17, MaCh\_17, Insomnia\_17, Jabith\_17, TinyTimmy\_17, Et2Brutus\_16, Flaverint\_17, Saskia\_16, Wolpertinger\_16, Sham4\_17, Bachome\_17, Petersenfast\_16, Ebony\_17, Fibonacci\_17, Gilberta\_17, Timothy\_17, Joselito\_17, Aneem\_17, Mulciber\_17, Kimba\_17, Bud\_17, Bowtie\_17, Mabel\_17, Hutc2\_17, Snape\_17
- Track 4 : Pharaoh\_17
- Track 5 : Zimmer\_19, Refuge\_20
- Track 6 : DarthPhader\_18
- Track 7 : Steamy\_18
- Track 8 : Jeeves\_16
- Track 9 : Gail\_16
- Track 10 : Sunhee\_16
- Track 11 : Luchador\_18
- Track 12 : SororFago\_16
- Track 13 : Remus\_19, Ravana\_19, MinecraftSteve\_20, Switzerland\_19, Looper\_20, LastResort\_19, JSwag\_19, ShayRa\_20, Warrior24\_19, Iceman\_17, Rosalind\_19,

KatherineG\_19, DekHockey33\_19, Oofda\_19, Waits\_19, Nebulosus\_19, ReMo\_19, OKaNui\_17, Anaysia\_19, Battleship\_20, Epsocamisio\_19, Nedarya\_18, Strosahl\_19, Boohoo\_19, Soups\_19

- Track 14 : 40AC\_20
- Track 15 : MyraDee\_14
- Track 16 : Kimona\_13
- Track 17 : QueenBeesly\_17, Anselm\_17, AN3\_17, SemperFi\_19, Georgie2\_18, Dignity\_19, AbbyPaige\_19, SweetiePie\_17, Power\_17, DudeLittle\_17, Benvolio\_17, Retro23\_17, LionsBait\_18, Dalmatian\_17, Smeagan\_19, Buggy\_19, LilTurb\_19, Whabigail7\_19, VA6\_17, HippoHollow\_18, Agape74\_19, JoshKayV\_19, Leviathan\_19, SnapTap\_17, Echid\_17, Crucio\_17, FiringLine\_17, Turbido\_19
- Track 18 : Tomathan\_20, First\_0017, D29\_18, PainterBoy\_18, EvilGenius\_19, Superchunk\_16, Caraxes\_16, Terrific\_21, Anon\_17, Travvers\_20, Trooper\_17, HarryHoudini\_19, Updawg\_19, BiancaTri92\_19, ForesterFrank\_18, DBQu4n\_20, NaSiaTalie\_17, Adzzy\_18, Duplo\_20, EZMoney23\_21, Flare16\_17, Equemioh13\_19, AnnaL29\_20, Prudy\_19, SwirlSquare\_18, Gratitude\_18, Kerberos\_20, 20ES\_17, D32\_20, Sknot\_17, KingCyrus\_19, Elle\_17, Lucyedi\_18, Baehexic\_18, TarsusIV\_17, Changeling\_20, MiculUcigas\_17, WideWale\_19, Kalpine\_20, StarStuff\_20, Odin\_16, Ph8s\_18, Trixie\_20, ChipMunk\_19, Centaur\_19, Drake55\_19, Naji\_20, LadyBird\_17, Tailonex\_14, WeiHuaDA\_23, EagleEye\_19, BobSwaget\_20, Pomar16\_20, Piro94\_18
- Track 19 : IronMan\_19
- Track 20 : Jerm\_19
- Track 21 : CRB1\_17
- Track 22 : Bradman\_16, Quokka\_15, MajorMajor\_16
- Track 23 : NicoleTera\_21, Mundrea\_16, ArcherNM\_19, RedRock\_20, Loser\_20, Stink\_16, AvatarAhPeg\_16, Miramae\_16, Cindaradix\_15, DeerParkTS\_18
- Track 24 : Miko\_20, Malec\_18, Colin\_21, Leogania\_19, Lokk\_20, Larenn\_18
- Track 25 : Deloris\_18, BengiVuitton\_18
- Track 26 : Fameo\_17, QueenB2\_17
- Track 27 : L5\_18
- Track 28 : Landor\_18, Phaded\_20
- Track 29 : MissWhite\_17
- Track 30 : Tristan\_18, Bactobuster\_18, Jaan\_20
- Track 31 : Koduck\_18
- Track 32 : Serenity\_16, XianYue\_17, Pukovnik\_19
- Track 33 : Iwokeuplikedis\_18
- Track 34 : Heffalump\_19
- Track 35 : Che12\_19
- Track 36 : BabyBack\_19
- Track 37 : Acolyte\_17
- Track 38 : Jsquared\_16
- Track 39 : NothingSpecial\_19
- Track 40 : FatCactus\_15
- Track 41 : Kinmap\_16
- Track 42 : Chargerpower\_17
- Track 43 : Norbert\_16, Noella\_17, ResDef\_17, Caviar\_17, Popcicle\_17, Texage\_16, Pocahontas\_17, Todacoro\_17, Hookmount\_17, EtoileNova\_17, QuinnKiro\_16, Margo\_17, Lambert1\_17
- Track 44 : Anubis\_20, LugYA\_20, Misomonster\_20, JenCasNa\_18, LarryKay\_18, Louie6\_18, Lova\_18, Wooldri\_20, Hercules11\_18, P28Green\_18, Bigflo\_18, PGHhamlin\_20, Stagni\_18, MadMarie\_18, TinyPebbles\_18, Rummer\_18, Methuseloh\_18, KADY\_19, MoneyMay\_18, Marie\_18, HashRod\_19, SoYo\_18, Sabinator\_18, Bxz2\_18, Beauxregard13\_18, Gwennie\_17, Croquant\_19, Grub\_18,

Ollie\_18, PotatoSplit\_19, Farber\_18, AgronaGT15\_18, Vix\_18, Dieselweasel\_18, BreSam8\_18, MuchMore\_20, BuzzBuzz\_17, Colbster\_18, DaHudson\_18, Fernando\_18, GtownJaz\_18, Spike509\_18, Microwolf\_18, Daishi\_17, Lilith\_18, Phoebe\_18, Grum1\_18, Taurus\_18, LBerry\_18, JHC117\_18, Soshari\_20, Grif\_18, Tiffany\_18, AugsMagnumOpus\_20, EpicPhail\_18, Penny1\_18, Mainiac\_18, Montavir\_17, Cullens\_18, Phoxy\_18, Aglet\_18, MarQuardt\_18, Watson\_18, Pembroke\_18, Sabia\_18, GingkoMaracino\_18, Snickers\_18

- Track 45 : Veracruz\_16, Panamaxus\_17
- Track 46 : HelDan\_16, Kachowdy\_16, Giroux\_17, Bugatti\_16, Marchesa\_16, Idleandcovert\_16, Scout\_16, Pistachio\_17, Heathen\_16, Puppy\_17, Roimos\_16, Zarafa\_16, Clammy\_16, TNguyen7\_16, BlueBird\_17, SaturnRing\_16, DropBear\_16
- Track 47 : SoilDragon\_18, Jobu08\_18
- Track 48 : Malinsilva\_20
- Track 49 : Isca\_16, TipsytheTRex\_16, Rockstar\_16
- Track 50 : BabyRay\_16
- Track 51 : JF4\_16, B1\_14, MK4\_16, Fred313\_16, JF2\_16
- Track 52 : Phantastic\_16
- Track 53 : Zetzy\_17
- Track 54 : MA5\_16
- Track 55 : Noelle\_16, Backyardigan\_16, Eurydice\_16, GaugeLDP\_19, Rachaly\_20, Perplexer\_16, ANI8\_20, Shygu2\_16, Rosa24\_15, BellusTerra\_16, JetBlade\_16, Peaches\_16, Badger\_16, LittleGuy\_16, Ohfah\_16, LeoAvram\_16, Floean\_16, ICleared\_16, Polymorphads\_16, Lunsford\_17, Nebs\_16, Bumblebee11\_16, Xena\_16, Datway\_16, HamSlice\_15, AN9\_20, Arturo\_15, PetiteSangsue\_16, Clarenza\_16, Wile\_16, Katalie136\_16, YoSam321\_16, Phontbonne\_16, Cici\_16, Sparxx\_16, TiroTheta9\_16, Maxo\_16, Morpher26\_16, Ruin\_16, Koreni\_15, LappelDuVide\_16, TygerBlood\_16, Eapen\_16, C3\_15, Sabertooth\_16, Tinybot\_15, Alberto7\_17, Camperdownii\_15, Abdiel\_16, AbbysRanger\_16, Achebe\_16, Holli\_16, Relief\_16, Kamy\_16, TinaFeyge\_16, Nyxis\_16, Jaykayelowell\_16, Lemur\_16, VC3\_20, Skipitt\_16
- Track 56 : BlessJoy\_20, DelvinSonDorr\_19, Wiks\_20, Heliosoles\_18, Calvinny\_19, CloudWang3\_20, PhishRPhriends\_17, VohminGhazi\_20, ACFishhook\_18, HaveUMetTed\_19, OlanP\_18, SmellyB\_20, Gemma\_18, Reba\_19, Manu\_19, Roksolana\_20, Chartreuse\_20, Pawn\_18, DaVinci\_20, Blinn1\_20, Kalb97\_19, Yokurt\_20, Kalnoky\_19, Kipper29\_20, Artemis2UCLA\_20, WunderPhul\_20, EricB\_20, Groupthink\_19, Phranny\_19, Kazan\_20, PurpleHaze\_18, Indra\_20, Hexamo\_20, Zulu\_20, ClownCar\_19, Lilbunny\_20, JeppNRM\_19, Hoot\_20, BennyP\_20, Marius\_19, GreedyLawyer\_20, Zaka\_20, McFly\_20
- Track 57 : Rifter\_20, Koko\_20, SuperCallie99\_20, Tucker\_20, Gladiator\_20, Blue7\_20, Hammer\_20, Gruunaga\_20, Jeffabunny\_20
- Track 58 : Cookiedough\_20, Isiphiwo\_20, Jordennis\_20, Neeharika16\_20, Newrala\_20, Helmet\_20, Candra\_20, Priamo\_20, Temprado\_20, BABullseye\_20, Polyphemos\_20, SuperAwesome\_20, Garak\_21
- Track 59 : JewelBug\_20, Dorothea\_20
- Track 60 : Pmask\_20
- Track 61 : FlyCatcher\_20, Sheen\_18, Toro\_19
- Track 62 : PP\_26
- Track 63 : Lilleskat\_16, Qobbit\_18, Phaeder\_18, Scherzo\_18, ExplosioNervosa\_18, Fayely\_18, Ugenie5\_15, Phonnegut\_18, Pioneer\_18, Tubs\_18, EdogawaKiddo\_16, Ayanochan\_19, Beemo\_18, Sachima\_16
- Track 64 : Keziacharles14\_16
- Track 65 : Arissanae\_16
- Track 66 : DreamTeam1\_17, Journey13\_15, Klodlith\_17, SheaKeira\_17, Charm\_17

- Track 67 : CogOmlette\_15, Rahalelujah\_16, Minispark\_15, WorldCup\_15, Bellris\_15
- Track 68 : Priya\_18, EmyBug\_18, Eidsmoe\_18, Alma\_18, Conquerage\_18, Spouty\_18
- Track 69 : Aliter\_18, Myxus\_18, HortumSL17\_18, Catalina\_18, PackMan\_18
- Track 70 : LoneWolf\_18
- Track 71 : Vanisoa\_16
- Track 72 : Yecey3\_17
- Track 73 : BogosyJay\_18, Maminiaina\_18, Darrell\_19, Elephantoan\_18
- Track 74 : Hanray\_17, Horex\_17, Onglai\_17, RyeScarlet\_19
- Track 75 : Celestialunch\_17, MegTheThird\_16
- Track 76 : Jiawan\_17
- Track 77 : Toaka\_16
- Track 78 : Espica\_13, UhSalsa\_13, Gollum\_13, RER2\_6, Naiad\_13, Belenaria\_13, Phrankenstien\_13, CosmicSans\_13, TWAMP\_13, Swann\_13, StCroix\_13, Alatin\_13, Bradshaw\_13, Lillie\_13, RexFury\_13, Nancinator\_13, Rhodalysa\_13
- Track 79 : Krishelle\_13, Hiro\_13, Yoncess\_13, AppleCloud\_11, BobbyDazzler\_13, Bonanza\_13, Bryce\_13, Yogi\_13, Rasputin\_13
- Track 80 : AngryOrchard\_12, Dinger\_13, Harlequin\_13, Takoda\_13, Partridge\_13, Jester\_13
- Track 81 : RGL3\_6
- Track 82 : Alpacados\_12
- Track 83 : PhailMary\_12
- Track 84 : Shuman\_13, Natosaleda\_13
- Track 85 : Erik\_13
- Track 86 : InLimbo\_8, Morkie\_7, PhorbesPhlower\_7
- Track 87 : Lucky10\_7

***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 26, it was called in 551 of the 571 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_17, 40AC\_20, ACFishhook\_18, AN3\_17, AN9\_20, ANI8\_20, AbbyPaige\_19, AbbysRanger\_16, Abdiel\_16, Achebe\_16, Acolyte\_17, Adzzy\_18, Agape74\_19, Aglet\_18, AgronaGT15\_18, Alatin\_13, Albee\_16, Alberto7\_17, Alma\_18, Alpacados\_12, Anaysia\_19, Aneem\_17, AngryOrchard\_12, AnnaL29\_20, Annyong\_16, Anon\_17, Anselm\_17, Anthony\_16, Anubis\_20, AppleCloud\_11, ArcherNM\_19, Arissanae\_16, Artemis2UCLA\_20, Arturo\_15, AugsMagnumOpus\_20, AvatarAhPeg\_16, Avle17\_16, Ayanochan\_19, B1\_14, BABullseye\_20, Baby16\_16, BabyBack\_19, BabyJohn\_15, BabyRay\_16, Bachome\_17, Backyardigan\_16, Bactobuster\_18, Badger\_16, Baehexic\_18, BangNhom\_15, Bartimeaus\_16, Battleship\_20, Beauxregard13\_18, Beemo\_18, Belenaria\_13, Bellris\_15, BellusTerra\_16, BengiVuitton\_18, BennyP\_20, Benvolio\_17, BiancaTri92\_19, Bigflo\_18, Blackmoor\_16, BlessJoy\_20, Blinn1\_20, Blue7\_20, BlueBird\_17, BobSwaget\_20, BobbyDazzler\_13, BogosyJay\_18, Bombshell\_16, Bonanza\_13, Boohoo\_19, Bowtie\_17, Bradman\_16, Bradshaw\_13, BreSam8\_18, Broseidon\_16, Bruiser\_16, Bryce\_13, BubbleTrouble\_16, Bud\_17, Bugatti\_16, Buggy\_19, Bumblebee11\_16, Burger\_15, BuzzBuzz\_17, Bxz2\_18, C3\_15, CRB1\_17, Caelakin\_16, Calvinny\_19, Camperdownii\_15, Candra\_20, Caraxes\_16, Caviar\_17,

Celestialunch\_17, Centaur\_19, CentreCat\_16, Cerulean\_16, ChampagnePapi\_16, Changeling\_20, Chaph\_16, Chargerpower\_17, Charm\_17, Chartreuse\_20, Che12\_19, ChipMunk\_19, Chiqui\_15, Chupacabra\_16, Cici\_16, Cindaradix\_15, Cintron\_16, Citius\_16, Clammy\_16, Clarenza\_16, CloudWang3\_20, ClownCar\_19, Cocoaberry\_16, CogOmlette\_15, Colbster\_18, Colin\_21, Commander\_16, Connomayer\_16, Conquerage\_18, Cookiedough\_20, CosmicSans\_13, Croquant\_19, Crucio\_17, Cullens\_18, D29\_18, D32\_20, DBQu4n\_20, DaHudson\_18, DaVinci\_20, Daishi\_17, Dalmatian\_17, Darrell\_19, DARTHPhader\_18, Datway\_16, Deano\_16, DeerParkTS\_18, DekHockey33\_19, Deloris\_18, DelvinSonDorr\_19, Dhanush\_16, Dieselweasel\_18, Dignity\_19, Dinger\_13, DirtyDunning\_16, DontArgue\_15, Dorothea\_20, Drake55\_19, Drake94\_15, DreamTeam1\_17, DroogsArmy\_17, DropBear\_16, Druantia\_16, DudeLittle\_17, Duplo\_20, DustyMartin\_19, EZMoney23\_21, EagleEye\_19, Eagle\_15, Eaglepride\_17, Eapen\_16, Ebony\_17, Echild\_17, Edison31\_16, EdogawaKiddo\_16, Eidsmoe\_18, Elephantoona\_18, Elle\_17, EmyBug\_18, EpicPhail\_18, Epsocamisio\_19, Equemioh13\_19, EricB\_20, Erik\_13, Eris\_16, Eros\_16, Espica\_13, Et2Brutus\_16, EtoileNova\_17, Eurydice\_16, EvilGenius\_19, ExplosioNervosa\_18, Fameo\_17, Farber\_18, FatCactus\_15, Fayely\_18, Fernando\_18, Fibonacci\_17, FiringLine\_17, First\_0017, Flare16\_17, Flaverint\_17, Florean\_16, Flux\_16, FlyCatcher\_20, ForesterFrank\_18, Fred313\_16, Funston\_16, Gadost\_16, Garak\_21, GaugeLDP\_19, Gemma\_18, Georgie2\_18, Gilberta\_17, GingkoMaracino\_18, Giroux\_17, Gladiator\_20, Gollum\_13, Goose\_16, Gratitude\_18, GreedyLawyer\_20, Grif\_18, Groupthink\_19, Grub\_18, Grum1\_18, Gruunaga\_20, GtownJaz\_18, Gwennie\_17, HINdeR\_16, HamSlice\_15, Hammer\_20, Hanray\_17, Happiness\_16, Harlequin\_13, HarryHoudini\_19, HashRod\_19, HaveUMetTed\_19, Heathen\_16, Heffalump\_19, HelDan\_16, Heliosoles\_18, Helmet\_20, Hercules11\_18, Hexamo\_20, HippoHollow\_18, Hiro\_13, Horex\_17, Holli\_16, Hookmount\_17, Hoot\_20, Houdini22\_16, Hutc2\_17, Huxley\_16, ICleared\_16, Iceman\_17, Idleandcovert\_16, Indra\_20, Insomnia\_17, Iracema64\_16, IronMan\_19, Isca\_16, Isiphiwo\_20, Iwokeuplikedis\_18, JF2\_16, JF4\_16, JHC117\_18, JSwag\_19, Jaan\_20, Jabith\_17, Jaykayelowell\_16, Jeffabunny\_20, JenCasNa\_18, JeppNRM\_19, Jester\_13, JetBlade\_16, JewelBug\_20, Jiawan\_17, Jobu08\_18, JoongJeon\_16, Jordennis\_20, Joselito\_17, JoshKayV\_19, Journey13\_15, Jsquared\_16, KADY\_19, KFPoly\_16, Kachowdy\_16, Kalb97\_19, Kalnok\_19, Kalpine\_20, Kamy\_16, Katalie136\_16, KatherineG\_19, Kazan\_20, KekoraPapaka\_15, Kerberos\_20, Keziacharles14\_16, Kimba\_17, Kimona\_13, KingCyrus\_19, Kingmustik0402\_16, Kinmap\_16, Kipper29\_20, KittenMittens\_15, Klodlith\_17, Koan\_16, Koduck\_18, Koko\_20, Koreni\_15, Kratak\_16, Kremtemulon\_16, Krishelle\_13, Kristoff\_17, Kyee\_16, LBerry\_18, LHTSCC\_16, LadyBird\_17, Lambert1\_17, LappelDuVide\_16, Larenn\_18, LarryKay\_18, LastResort\_19, Lemur\_16, LeoAvram\_16, Leogania\_19, Leviathan\_19, LilTurb\_19, Lilbunny\_20, Lilith\_18, Lilleskat\_16, Lillie\_13, LionsBait\_18, LittleB\_16, LittleGuy\_16, LochMonster\_16, Lokk\_20, LoneWolf\_18, Looper\_20, Lorenzo\_16, Loser\_20, Louie6\_18, Lova\_18, Luchador\_18, Lucivia\_17, Lucyedi\_18, LugYA\_20, Lunsford\_17, MA5\_16, MK4\_16, MaCh\_17, Mabel\_17, MadMarie\_18, Mainiac\_18, MajorMajor\_16, Malec\_18, Malinsilva\_20, Maminiaina\_18, Manu\_19, MarQuardt\_18, Marchesa\_16, Margo\_17, Marie\_18, Marius\_19, Maverick\_16, Maxo\_16, Mayonnaise\_16, Mazhar510\_16, McFly\_20, Medusa\_16, MeeZee\_16, MegTheThird\_16, Melvin\_16, Methuselah\_18, Microwolf\_18, MicuUcigas\_17, Miko\_20, Millski\_16, MinecraftSteve\_20, Minispark\_15, Miramae\_16, Misomonster\_20, MissWhite\_17, MoneyMay\_18, Montavir\_17, Morpher26\_16, Morrow\_16, MuchMore\_20, Mulciber\_17, Munch\_17, Mundrea\_16, MyraDee\_14, NaSiaTalie\_17, Naiad\_13, Naji\_20, Nancinator\_13, Natosaleda\_13, Nebs\_16, Nebulosus\_19, Nedarya\_18, Neeharika16\_20, Nemo27\_16, Newrala\_20,

NicoleTera\_21, Noella\_17, Noelle\_16, Norbert\_16, NorthStar\_16, NotAPhaseMom\_16, NothingSpecial\_19, Nyxis\_16, OKCentral2016\_16, OKaNui\_17, Obama12\_16, Odin\_16, Ohfah\_16, OlanP\_18, Ollie\_18, Onglai\_17, Oofda\_19, Orange\_17, P28Green\_18, PGHhamlin\_20, PP\_26, PainterBoy\_18, Palestino\_16, Partridge\_13, Pawn\_18, PeaceMeal1\_15, Peaches\_16, Pembroke\_18, Penny1\_18, Perplexer\_16, PeterPeter\_16, Petersenfast\_16, PetiteSangsue\_16, Ph8s\_18, Phacado\_16, Phaeder\_18, Phantastic\_16, Pharaoh\_17, Phelipe\_16, Phighter1804\_16, PhishRPhriends\_17, Phoebe\_18, Phonnegut\_18, Phontbonne\_16, Phoxy\_18, Phrankenstein\_13, Phranny\_19, Pioneer\_18, Pipcraft\_16, Piro94\_18, Pistachio\_17, Pmask\_20, Pocahontas\_17, Polymorphads\_16, Polyphemus\_20, Pomar16\_20, Poompha\_15, Popcicle\_17, PotatoSplit\_19, Power\_17, Priamo\_20, Priya\_18, Prudy\_19, Pukovnik\_19, Pumbaa\_16, Puppy\_17, PurpleHaze\_18, Qobbit\_18, QueenB2\_17, QueenBeesly\_17, QuinnKiro\_16, Quokka\_15, RER2\_6, RGL3\_6, Rachaly\_20, Rahalelujah\_16, Rasputin\_13, Ravana\_19, ReMo\_19, Reba\_19, Rebeuca\_17, RedRock\_20, Refuge\_20, Relief\_16, Remus\_19, ResDef\_17, Retro23\_17, RexFury\_13, Rhodalysa\_13, RhynO\_17, Rifter\_20, RockieBear\_15, Rockstar\_16, Roimos\_16, Roksolana\_20, Romney\_16, Roosevelt\_16, Rosa24\_15, Rosalind\_19, Rowdy\_19, Ruin\_16, Rummer\_18, RyeScarlet\_19, Sabertooth\_16, Sabia\_18, Sabinator\_18, Sachima\_16, Salz\_17, Saskia\_16, SaturnRing\_16, Scamp\_16, Scherzo\_18, Scout\_16, SemperFi\_19, SenorClean\_16, Serenity\_16, Severus\_15, Shaka\_16, Sham4\_17, Shapes\_19, ShayRa\_20, SheaKeira\_17, Sheen\_18, SheldonCooper\_16, Shuman\_13, Shygu2\_16, Skipitt\_16, Sknot\_17, Smeagan\_19, SmellyB\_20, SnapTap\_17, Snape\_17, Snickers\_18, SoYo\_18, SoilDragon\_18, Soshari\_20, Soups\_19, Sparxx\_16, Spike509\_18, Spino\_16, Spouty\_18, StCroix\_13, Stagni\_18, StarStuff\_20, Stasia\_17, SteMason\_16, Stink\_16, Strosahl\_19, Sultana\_16, SuperAwesome\_20, SuperCallie99\_20, Superchunk\_16, Swann\_13, SweetiePie\_17, SwirlSquare\_18, Switzerland\_19, TNguyen7\_16, TWAMP\_13, Tailonex\_14, Takoda\_13, Taquarus\_16, TarsusIV\_17, Taurus\_18, Temprado\_20, Terrific\_21, Texage\_16, Thanksgivukkah\_16, Tiffany\_18, Timothy\_17, Timshel\_17, TinaFeyge\_16, TinyPebbles\_18, TinyTimmy\_17, Tinybot\_15, TipsytheTRex\_16, TiroTheta9\_16, Toaka\_16, Todacoro\_17, Tomathan\_20, Topanga\_16, Toro\_19, Travvers\_20, Trike\_14, Tristan\_18, Trixie\_20, Trooper\_17, TroyPia\_16, Tubs\_18, Tucker\_20, Turbido\_19, Twister\_16, TygerBlood\_16, Ugenie5\_15, UhSalsa\_13, Ulysses\_15, Updawg\_19, VA6\_17, VC3\_20, Vanisoa\_16, Vix\_18, VohminGhazi\_20, Waits\_19, WalterMcMickey\_16, Wander\_16, Warrior24\_19, Watson\_18, WeiHuaDA\_23, Whabigail7\_19, WideWale\_19, Wiks\_20, Wilbur\_16, Wile\_16, Wizard007\_16, Wolpertinger\_16, Wooldri\_20, WorldCup\_15, WunderPhul\_20, Xena\_16, XianYue\_17, Yecey3\_17, YoSam321\_16, Yogi\_13, Yokurt\_20, Yoncess\_13, Zaka\_20, Zarafa\_16, Zetzy\_17, Zimmer\_19, Zulu\_20,

Genes that have the "Most Annotated" start but do not call it:

- Aliter\_18, Catalina\_18, HortumSL17\_18, Jerm\_19, L5\_18, Landor\_18, Myxus\_18, PackMan\_18, Panamaxus\_17, Phaded\_20, PhailMary\_12, Steamy\_18, Veracruz\_16,

Genes that do not have the "Most Annotated" start:

- Gail\_16, InLimbo\_8, Jeeves\_16, Lucky10\_7, Morkie\_7, PhorbesPhlower\_7, SororFago\_16, Sunhee\_16,

### Summary by start number:

Start 5:

- Found in 6 of 647 ( 0.9% ) of genes in pham

- Manual Annotations of this start: 1 of 571
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Steamy\_18 (A12),

Start 13:

- Found in 31 of 647 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 1 of 571
- Called 3.2% of time when present
- Phage (with cluster) where this start called: Jerm\_19 (A2),

Start 14:

- Found in 17 of 647 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 571
- Called 5.9% of time when present
- Phage (with cluster) where this start called: PhailMary\_12 (CA),

Start 17:

- Found in 26 of 647 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 5 of 571
- Called 19.2% of time when present
- Phage (with cluster) where this start called: Aliter\_18 (A9), Catalina\_18 (A9), HortumSL17\_18 (A9), Myxus\_18 (A9), PackMan\_18 (A9),

Start 20:

- Found in 3 of 647 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 571
- Called 33.3% of time when present
- Phage (with cluster) where this start called: L5\_18 (A2),

Start 21:

- Found in 5 of 647 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 2 of 571
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Landor\_18 (A2), Phaded\_20 (A2),

Start 23:

- Found in 16 of 647 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 2 of 571
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Panamaxus\_17 (A3), Veracruz\_16 (A3),

Start 24:

- Found in 1 of 647 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 571
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gail\_16 (A14),

Start 25:

- Found in 4 of 647 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 3 of 571
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Jeeves\_16 (A14), SororFago\_16 (A14), Sunhee\_16 (A14),

Start 26:

- Found in 639 of 647 ( 98.8% ) of genes in pham
- Manual Annotations of this start: 551 of 571
- Called 98.0% of time when present
- Phage (with cluster) where this start called: 20ES\_17 (A2), 40AC\_20 (A17), ACFishhook\_18 (A3), AN3\_17 (A2), AN9\_20 (A2), ANI8\_20 (A2), AbbyPaige\_19 (A2), AbbysRanger\_16 (A4), Abdiel\_16 (A4), Achebe\_16 (A4), Acolyte\_17 (A2), Adzzy\_18 (A2), Agape74\_19 (A2), Aglet\_18 (A3), AgronaGT15\_18 (A3), Alatin\_13 (CA), Albee\_16 (A4), Alberto7\_17 (A4), Alma\_18 (A9), Alpacados\_12 (CA), Anaysia\_19 (A15), Aneem\_17 (A11), AngryOrchard\_12 (CA), AnnaL29\_20 (A2), Annyong\_16 (A4), Anon\_17 (A15), Anselm\_17 (A2), Anthony\_16 (A20), Anubis\_20 (A3), AppleCloud\_11 (CA), ArcherNM\_19 (A2), Arissanae\_16 (A9), Artemis2UCLA\_20 (A6), Arturo\_15 (A4), AugsMagnumOpus\_20 (A3), AvatarAhPeg\_16 (A4), Avle17\_16 (A4), Ayanochan\_19 (A9), B1\_14 (A3), BABullseye\_20 (A6), Baby16\_16 (A4), BabyBack\_19 (A2), BabyJohn\_15 (A3), BabyRay\_16 (A3), Bachome\_17 (A11), Backyardigan\_16 (A4), Bactobuster\_18 (A2), Badger\_16 (A4), Baehexic\_18 (A2), BangNhom\_15 (A4), Bartimeaus\_16 (A4), Battleship\_20 (A15), Beauxregard13\_18 (A3), Beemo\_18 (A9), Belenaria\_13 (CA), Bellris\_15 (A9), BellusTerra\_16 (A4), BengiVuitton\_18 (A2), BennyP\_20 (A6), Benvolio\_17 (A2), BiancaTri92\_19 (A2), Bigflo\_18 (A3), Blackmoor\_16 (A4), BlessJoy\_20 (A6), Blinn1\_20 (A6), Blue7\_20 (A6), BlueBird\_17 (A3), BobSwaget\_20 (A2), BobbyDazzler\_13 (CA), BogosyJay\_18 (A9), Bombshell\_16 (A4), Bonanza\_13 (CA), Boohoo\_19 (A15), Bowtie\_17 (A11), Bradman\_16 (A2), Bradshaw\_13 (CA), BreSam8\_18 (A3), Broseidon\_16 (A4), Bruiser\_16 (A4), Bryce\_13 (CA), BubbleTrouble\_16 (A4), Bud\_17 (A11), Bugatti\_16 (A3), Buggy\_19 (A2), Bumblebee11\_16 (A4), Burger\_15 (A4), BuzzBuzz\_17 (A3), Bxz2\_18 (A3), C3\_15 (A2), CRB1\_17 (A2), Caelakin\_16 (A4), Calvinny\_19 (A3), Camperdownii\_15 (A4), Candra\_20 (A6), Caraxes\_16 (A2), Caviar\_17 (A3), Celestiallunch\_17 (A9), Centaur\_19 (A2), CentreCat\_16 (A4), Cerulean\_16 (A4), ChampagnePapi\_16 (A4), Changeling\_20 (A2), Chaph\_16 (A4), Chargerpower\_17 (A22), Charm\_17 (A9), Chartreuse\_20 (A6), Che12\_19 (A2), ChipMunk\_19 (A2), Chiqui\_15 (A3), Chupacabra\_16 (A10), Cici\_16 (A4), Cindaradix\_15 (A4), Cintron\_16 (A4), Citius\_16 (A4), Clammy\_16 (A3), Clarenza\_16 (A4), CloudWang3\_20 (A6), ClownCar\_19 (A3), Cocoaberry\_16 (A4), CogOmlette\_15 (A9), Colbster\_18 (A3), Colin\_21 (A2), Commander\_16 (A4), Connomayer\_16 (A4), Conquerage\_18 (A9), Cookiedough\_20 (A6), CosmicSans\_13 (CA), Croquant\_19 (A3), Crucio\_17 (A2), Cullens\_18 (A3), D29\_18 (A2), D32\_20 (A2), DBQu4n\_20 (A2), DaHudson\_18 (A3), DaVinci\_20 (A6), Daishi\_17 (A3), Dalmatian\_17 (A2), Darrell\_19 (A9), DarthPhader\_18 (A12), Datway\_16 (A4), Deano\_16 (A4), DeerParkTS\_18 (A2), DekHockey33\_19 (A15), Deloris\_18 (A2), DelvinSonDorr\_19 (A6), Dhanush\_16 (A4), Dieselweasel\_18 (A3), Dignity\_19 (A2), Dinger\_13 (CA), DirtyDunning\_16 (A4), DontArgue\_15 (A10), Dorothea\_20 (A6), Drake55\_19 (A2), Drake94\_15 (A10), DreamTeam1\_17 (A9), DroogsArmy\_17 (A7), DropBear\_16 (A3), Druantia\_16 (A4), DudeLittle\_17 (A2), Duplo\_20 (A2), DustyMartin\_19 (A10), EZMoney23\_21 (A2), EagleEye\_19 (A16), Eagle\_15 (A4), Eaglepride\_17 (A10), Eapen\_16 (A4), Ebony\_17 (A11), Echild\_17 (A2), Edison31\_16 (A10), EdogawaKiddo\_16 (A9), Eidsmoe\_18 (A9), Elephantoon\_18 (A9), Elle\_17 (A15), EmyBug\_18 (A9), EpicPhail\_18 (A3), Epsocamisio\_19 (A15), Equemioh13\_19 (A2), EricB\_20 (A6), Erik\_13 (CA), Eris\_16 (A4), Eros\_16 (A4), Espica\_13 (CA), Et2Brutus\_16 (A11), EtoileNova\_17 (A3), Eurydice\_16 (A4), EvilGenius\_19 (A2), ExplosioNervosa\_18 (A9), Fameo\_17 (A2), Farber\_18 (A3), FatCactus\_15 (A20), Fayely\_18 (A9), Fernando\_18 (A3), Fibonacci\_17 (A11), FiringLine\_17 (A2), First\_0017 (A2), Flare16\_17 (A2), Flaverint\_17 (A11), Florean\_16 (A4), Flux\_16 (A4), FlyCatcher\_20 (A7),

ForesterFrank\_18 (A2), Fred313\_16 (A3), Funston\_16 (A4), Gadost\_16 (A4), Garak\_21 (A6), GaugeLDP\_19 (A2), Gemma\_18 (A3), Georgie2\_18 (A2), Gilberta\_17 (A11), GingkoMaracino\_18 (A3), Giroux\_17 (A3), Gladiator\_20 (A6), Gollum\_13 (CA), Goose\_16 (A10), Gratitude\_18 (A2), GreedyLawyer\_20 (A6), Grif\_18 (A3), Groupthink\_19 (A3), Grub\_18 (A3), Grum1\_18 (A3), Gruunaga\_20 (A6), GtownJaz\_18 (A3), Gwennie\_17 (A3), HINdeR\_16 (A7), HamSlice\_15 (A4), Hammer\_20 (A6), Hanray\_17 (A9), Happiness\_16 (A4), Harlequin\_13 (CA), HarryHoudini\_19 (A2), HashRod\_19 (A3), HaveUMetTed\_19 (A3), Heathen\_16 (A3), Heffalump\_19 (A2), HelDan\_16 (A3), Heliosoles\_18 (A3), Helmet\_20 (A6), Hercules11\_18 (A3), Hexamo\_20 (A6), HippoHollow\_18 (A2), Hiro\_13 (CA), Horex\_17 (A9), Holli\_16 (A4), Hookmount\_17 (A3), Hoot\_20 (A6), Houdini22\_16 (A4), Hutc2\_17 (A11), Huxley\_16 (A4), ICleared\_16 (A4), Iceman\_17 (A4), Idleandcovert\_16 (A3), Indra\_20 (A6), Insomnia\_17 (A11), Iracema64\_16 (A4), IronMan\_19 (A2), Isca\_16 (A3), Isiphiwo\_20 (A6), Iwokeuplikedis\_18 (A2), JF2\_16 (A3), JF4\_16 (A3), JHC117\_18 (A3), JSwag\_19 (A15), Jaan\_20 (A2), Jabith\_17 (A11), Jaykayelowell\_16 (A4), Jeffabunny\_20 (A6), JenCasNa\_18 (A3), JeppNRM\_19 (A3), Jester\_13 (CA), JetBlade\_16 (A4), JewelBug\_20 (A6), Jiawan\_17 (A9), Jobu08\_18 (A3), JoongJeon\_16 (A4), Jordennis\_20 (A6), Joselito\_17 (A11), JoshKayV\_19 (A2), Journey13\_15 (A2), Jsquared\_16 (A2), KADY\_19 (A3), KFPoly\_16 (A4), Kachowdy\_16 (A3), Kalb97\_19 (A3), Kalnoky\_19 (A3), Kalpine\_20 (A2), Kamy\_16 (A4), Katalie136\_16 (A4), KatherineG\_19 (A15), Kazan\_20 (A6), KekoraPapaka\_15 (A4), Kerberos\_20 (A2), Keziacharles14\_16 (A9), Kimba\_17 (A11), Kimona\_13 (A19), KingCyrus\_19 (A2), Kingmustik0402\_16 (A4), Kinmap\_16 (A21), Kipper29\_20 (A6), KittenMittens\_15 (A10), Klodlith\_17 (A9), Koan\_16 (A4), Koduck\_18 (A2), Koko\_20 (A6), Koreni\_15 (A4), Kratark\_16 (A4), Kremtemulon\_16 (A4), Krishelle\_13 (CA), Kristoff\_17 (A10), Kyee\_16 (A4), LBerry\_18 (A3), LHTSCC\_16 (A4), LadyBird\_17 (A2), Lambert1\_17 (A3), LappelDuVide\_16 (A4), Larenn\_18 (A2), LarryKay\_18 (A3), LastResort\_19 (A15), Lemur\_16 (A4), LeoAvram\_16 (A4), Leogania\_19 (A2), Leviathan\_19 (A2), LilTurb\_19 (A2), Lilbunny\_20 (A6), Lilith\_18 (A3), Lilleskat\_16 (A9), Lillie\_13 (CA), LionsBait\_18 (A2), LittleB\_16 (A4), LittleGuy\_16 (A4), LochMonster\_16 (A4), Lokk\_20 (A2), LoneWolf\_18 (A9), Looper\_20 (A15), Lorenzo\_16 (A4), Loser\_20 (A2), Louie6\_18 (A3), Iowa\_18 (A3), Luchador\_18 (A14), Lucivia\_17 (A11), Lucyedi\_18 (A16), LugYA\_20 (A3), Lunsford\_17 (A4), MA5\_16 (A3), MK4\_16 (A3), MaCh\_17 (A11), Mabel\_17 (A11), MadMarie\_18 (A3), Mainiac\_18 (A3), MajorMajor\_16 (A2), Malec\_18 (A2), Malinsilva\_20 (A3), Maminiaina\_18 (A9), Manu\_19 (A3), MarQuardt\_18 (A3), Marchesa\_16 (A3), Margo\_17 (A3), Marie\_18 (A3), Marius\_19 (A3), Maverick\_16 (A4), Maxo\_16 (A4), Mayonnaise\_16 (A4), Mazhar510\_16 (A4), McFly\_20 (A6), Medusa\_16 (A4), MeeZee\_16 (A4), MegTheThird\_16 (A9), Melvin\_16 (A4), Methuselah\_18 (A3), Microwolf\_18 (A3), MiculUcigas\_17 (A2), Miko\_20 (A2), Millski\_16 (A4), MinecraftSteve\_20 (A15), Minispark\_15 (A9), Miramae\_16 (A4), Misomonster\_20 (A3), MissWhite\_17 (A2), MoneyMay\_18 (A3), Montavir\_17 (A3), Morpher26\_16 (A4), Morrow\_16 (A4), MuchMore\_20 (A3), Mulciber\_17 (A11), Munch\_17 (A11), Mundrea\_16 (A4), MyraDee\_14 (A18), NaSiaTalie\_17 (A2), Naiad\_13 (CA), Naji\_20 (A2), Nancinator\_13 (CA), Natosaleda\_13 (CA), Nebs\_16 (A4), Nebulosus\_19 (A15), Nedarya\_18 (A15), Neeharika16\_20 (A6), Nemo27\_16 (A4), Newrala\_20 (A6), NicoleTera\_21 (A2), Noella\_17 (A3), Noelle\_16 (A4), Norbert\_16 (A3), NorthStar\_16 (A4), NotAPhaseMom\_16 (A4), NothingSpecial\_19 (A2), Nyxis\_16 (A4), OKCentral2016\_16 (A10), OKaNui\_17 (A4), Obama12\_16 (A4), Odin\_16 (A2), Ohfah\_16 (A4), OlanP\_18 (A3), Ollie\_18 (A3), Onglai\_17 (A9), Oofda\_19 (A15), Orange\_17 (A11), P28Green\_18 (A3), PGHhamlin\_20 (A3), PP\_26 (A7), PainterBoy\_18 (A16), Palestino\_16 (A4), Partridge\_13 (CA), Pawn\_18 (A3), PeaceMeal1\_15 (A10), Peaches\_16 (A4), Pembroke\_18 (A3), Penny1\_18 (A3),

Perplexer\_16 (A4), PeterPeter\_16 (A4), Petersenfast\_16 (A11), PetiteSangsue\_16 (A4), Ph8s\_18 (A2), Phacado\_16 (A4), Phaeder\_18 (A9), Phantastic\_16 (A3), Pharaoh\_17 (A12), Phelipe\_16 (A4), Phighter1804\_16 (A4), PhishRPhriends\_17 (A3), Phoebe\_18 (A3), Phonnegut\_18 (A9), Phontbonne\_16 (A4), Phoxy\_18 (A3), Phrankenstien\_13 (CA), Phranny\_19 (A3), Pioneer\_18 (A9), Pipcraft\_16 (A4), Piro94\_18 (A2), Pistachio\_17 (A3), Pmask\_20 (A6), Pocahontas\_17 (A3), Polymorphads\_16 (A4), Polyphemus\_20 (A6), Pomar16\_20 (A2), Poompha\_15 (A10), Popcicle\_17 (A3), PotatoSplit\_19 (A3), Power\_17 (A2), Priamo\_20 (A6), Priya\_18 (A9), Prudy\_19 (A2), Pukovnik\_19 (A2), Pumbaa\_16 (A4), Puppy\_17 (A3), PurpleHaze\_18 (A3), Qobbit\_18 (A9), QueenB2\_17 (A2), QueenBeesly\_17 (A2), QuinnKiro\_16 (A3), Quokka\_15 (A2), RER2\_6 (CA), RGL3\_6 (CA), Rachaly\_20 (A2), Rahalelujah\_16 (A9), Rasputin\_13 (CA), Ravana\_19 (A15), ReMo\_19 (A15), Reba\_19 (A3), Rebeuca\_17 (A10), RedRock\_20 (A2), Refuge\_20 (A12), Relief\_16 (A4), Remus\_19 (A15), ResDef\_17 (A3), Retro23\_17 (A2), RexFury\_13 (CA), Rhodalysa\_13 (CA), RhynO\_17 (A10), Rifter\_20 (A6), RockieBear\_15 (A4), Rockstar\_16 (A3), Roimos\_16 (A3), Roksolana\_20 (A6), Romney\_16 (A4), Roosevelt\_16 (A4), Rosa24\_15 (A4), Rosalind\_19 (A15), Rowdy\_19 (A10), Ruin\_16 (A4), Rummer\_18 (A3), RyeScarlet\_19 (A9), Sabertooth\_16 (A4), Sabia\_18 (A3), Sabinator\_18 (A3), Sachima\_16 (A9), Salz\_17 (A11), Saskia\_16 (A11), SaturnRing\_16 (A3), Scamp\_16 (A4), Scherzo\_18 (A9), Scout\_16 (A3), SemperFi\_19 (A2), SenorClean\_16 (A4), Serenity\_16 (A2), Severus\_15 (A10), Shaka\_16 (A4), Sham4\_17 (A11), Shapes\_19 (A10), ShayRa\_20 (A15), SheaKeira\_17 (A9), Sheen\_18 (A7), SheldonCooper\_16 (A4), Shuman\_13 (CA), Shygu2\_16 (A4), Skipitt\_16 (A4), Sknot\_17 (A2), Smeagan\_19 (A2), SmellyB\_20 (A6), SnapTap\_17 (A2), Snape\_17 (A11), Snickers\_18 (A3), SoYo\_18 (A3), SoilDragon\_18 (A3), Soshari\_20 (A3), Soups\_19 (A15), Sparxx\_16 (A4), Spike509\_18 (A3), Spino\_16 (A4), Spouty\_18 (A9), StCroix\_13 (CA), Stagni\_18 (A3), StarStuff\_20 (A2), Stasia\_17 (A4), SteMason\_16 (A4), Stink\_16 (A4), Strosahl\_19 (A15), Sultana\_16 (A4), SuperAwesome\_20 (A6), SuperCallie99\_20 (A6), Superchunk\_16 (A2), Swann\_13 (CA), SweetiePie\_17 (A2), SwirlSquare\_18 (A2), Switzerland\_19 (A15), TNguyen7\_16 (A3), TWAMP\_13 (CA), Tailonex\_14 (singleton), Takoda\_13 (CA), Taquarus\_16 (A4), TarsusIV\_17 (A2), Taurus\_18 (A3), Temprado\_20 (A6), Terrific\_21 (A2), Texage\_16 (A3), Thanksgivukkah\_16 (A4), Tiffany\_18 (A3), Timothy\_17 (A11), Timshel\_17 (A7), TinaFeyge\_16 (A4), TinyPebbles\_18 (A3), TinyTimmy\_17 (A11), Tinybot\_15 (A4), TipsytheTRex\_16 (A2), TiroTheta9\_16 (A4), Toaka\_16 (A9), Todacoro\_17 (A3), Tomathan\_20 (A2), Topanga\_16 (A10), Toro\_19 (A7), Travvers\_20 (A2), Trike\_14 (A10), Tristan\_18 (A2), Trixie\_20 (A2), Trooper\_17 (A2), TroyPia\_16 (A4), Tubs\_18 (A9), Tucker\_20 (A6), Turbido\_19 (A2), Twister\_16 (A10), TygerBlood\_16 (A4), Ugenie5\_15 (A9), UhSalsa\_13 (CA), Ulysses\_15 (A4), Updawg\_19 (A2), VA6\_17 (A2), VC3\_20 (A2), Vanisoa\_16 (A9), Vix\_18 (A3), VohminGhazi\_20 (A6), Waits\_19 (A15), WalterMcMickey\_16 (A10), Wander\_16 (A4), Warrior24\_19 (A15), Watson\_18 (A3), WeiHuaDA\_23 (A2), Whabigail7\_19 (A2), WideWale\_19 (A2), Wiks\_20 (A6), Wilbur\_16 (A4), Wile\_16 (A4), Wizard007\_16 (A4), Wolpertinger\_16 (A11), Wooldri\_20 (A3), WorldCup\_15 (A9), WunderPhul\_20 (A6), Xena\_16 (A4), XianYue\_17 (A2), Yecey3\_17 (A9), YoSam321\_16 (A4), Yogi\_13 (CA), Yokurt\_20 (A6), Yoncess\_13 (CA), Zaka\_20 (A6), Zarafa\_16 (A3), Zetzy\_17 (A3), Zimmer\_19 (A12), Zulu\_20 (A6),

Start 36:

- Found in 4 of 647 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 3 of 571
- Called 100.0% of time when present

- Phage (with cluster) where this start called: InLimbo\_8 (DH), Lucky10\_7 (DH), Morkie\_7 (DH), PhorbesPhlower\_7 (DH),

### **Summary by clusters:**

There are 21 clusters represented in this pham: A20, A14, A17, A16, A11, A10, DH, A12, CA, A19, A15, A18, A3, A2, A4, A7, A6, A9, A21, singleton, A22,

Info for manual annotations of cluster A10:

- Start number 26 was manually annotated 17 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 26 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 5 was manually annotated 1 time for cluster A12.
- Start number 26 was manually annotated 4 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 24 was manually annotated 1 time for cluster A14.
- Start number 25 was manually annotated 3 times for cluster A14.
- Start number 26 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A15:

- Start number 26 was manually annotated 24 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 26 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 26 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 26 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 13 was manually annotated 1 time for cluster A2.
- Start number 20 was manually annotated 1 time for cluster A2.
- Start number 21 was manually annotated 2 times for cluster A2.
- Start number 26 was manually annotated 101 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 26 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A22:

- Start number 26 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:

- Start number 23 was manually annotated 2 times for cluster A3.
- Start number 26 was manually annotated 113 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 26 was manually annotated 143 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 26 was manually annotated 47 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 26 was manually annotated 5 times for cluster A7.

Info for manual annotations of cluster A9:

- Start number 17 was manually annotated 5 times for cluster A9.
- Start number 26 was manually annotated 30 times for cluster A9.

Info for manual annotations of cluster CA:

- Start number 14 was manually annotated 1 time for cluster CA.
- Start number 26 was manually annotated 35 times for cluster CA.

Info for manual annotations of cluster DH:

- Start number 36 was manually annotated 3 times for cluster DH.

### ***Gene Information:***

Gene: 20ES\_17 Start: 13206, Stop: 13382, Start Num: 26

Candidate Starts for 20ES\_17:

(Start: 26 @13206 has 551 MA's),

Gene: 40AC\_20 Start: 15229, Stop: 15408, Start Num: 26

Candidate Starts for 40AC\_20:

(Start: 26 @15229 has 551 MA's), (55, 15382),

Gene: ACFishhook\_18 Start: 12760, Stop: 12942, Start Num: 26

Candidate Starts for ACFishhook\_18:

(Start: 26 @12760 has 551 MA's),

Gene: AN3\_17 Start: 13196, Stop: 13372, Start Num: 26

Candidate Starts for AN3\_17:

(Start: 13 @13148 has 1 MA's), (Start: 26 @13196 has 551 MA's),

Gene: AN9\_20 Start: 13198, Stop: 13377, Start Num: 26

Candidate Starts for AN9\_20:

(Start: 26 @13198 has 551 MA's),

Gene: ANI8\_20 Start: 13198, Stop: 13377, Start Num: 26

Candidate Starts for ANI8\_20:

(Start: 26 @13198 has 551 MA's),

Gene: AbbyPaige\_19 Start: 13651, Stop: 13833, Start Num: 26

Candidate Starts for AbbyPaige\_19:

(Start: 13 @13603 has 1 MA's), (Start: 26 @13651 has 551 MA's),

Gene: AbbysRanger\_16 Start: 12505, Stop: 12702, Start Num: 26

Candidate Starts for AbbysRanger\_16:  
(Start: 26 @12505 has 551 MA's),

Gene: Abdiel\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Abdiel\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: Achebe\_16 Start: 12484, Stop: 12681, Start Num: 26  
Candidate Starts for Achebe\_16:  
(Start: 26 @12484 has 551 MA's),

Gene: Acolyte\_17 Start: 13345, Stop: 13500, Start Num: 26  
Candidate Starts for Acolyte\_17:  
(Start: 26 @13345 has 551 MA's), (33, 13384),

Gene: Adzzy\_18 Start: 11960, Stop: 12115, Start Num: 26  
Candidate Starts for Adzzy\_18:  
(Start: 26 @11960 has 551 MA's),

Gene: Agape74\_19 Start: 13651, Stop: 13833, Start Num: 26  
Candidate Starts for Agape74\_19:  
(Start: 13 @13603 has 1 MA's), (Start: 26 @13651 has 551 MA's),

Gene: Aglet\_18 Start: 12603, Stop: 12788, Start Num: 26  
Candidate Starts for Aglet\_18:  
(Start: 26 @12603 has 551 MA's), (38, 12666),

Gene: AgronaGT15\_18 Start: 12510, Stop: 12695, Start Num: 26  
Candidate Starts for AgronaGT15\_18:  
(Start: 26 @12510 has 551 MA's), (38, 12573),

Gene: Alatin\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Alatin\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Albee\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Albee\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Alberto7\_17 Start: 12780, Stop: 12986, Start Num: 26  
Candidate Starts for Alberto7\_17:  
(Start: 26 @12780 has 551 MA's),

Gene: Aliter\_18 Start: 13817, Stop: 14065, Start Num: 17  
Candidate Starts for Aliter\_18:  
(Start: 17 @13817 has 5 MA's), (Start: 26 @13841 has 551 MA's), (33, 13880), (45, 13931), (48, 13943), (51, 13991), (56, 14021),

Gene: Alma\_18 Start: 13920, Stop: 14144, Start Num: 26  
Candidate Starts for Alma\_18:  
(Start: 26 @13920 has 551 MA's), (33, 13959), (45, 14010), (48, 14022), (51, 14070), (56, 14100),

Gene: Alpacados\_12 Start: 8637, Stop: 8843, Start Num: 26

Candidate Starts for Alpacados\_12:  
(Start: 14 @8589 has 1 MA's), (Start: 26 @8637 has 551 MA's),

Gene: Anaysia\_19 Start: 12316, Stop: 12486, Start Num: 26  
Candidate Starts for Anaysia\_19:  
(Start: 26 @12316 has 551 MA's),

Gene: Aneem\_17 Start: 13757, Stop: 13924, Start Num: 26  
Candidate Starts for Aneem\_17:  
(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: AngryOrchard\_12 Start: 8620, Stop: 8826, Start Num: 26  
Candidate Starts for AngryOrchard\_12:  
(Start: 14 @8572 has 1 MA's), (Start: 26 @8620 has 551 MA's), (45, 8713),

Gene: AnnaL29\_20 Start: 15039, Stop: 15221, Start Num: 26  
Candidate Starts for AnnaL29\_20:  
(Start: 26 @15039 has 551 MA's),

Gene: Annyong\_16 Start: 12479, Stop: 12685, Start Num: 26  
Candidate Starts for Annyong\_16:  
(Start: 26 @12479 has 551 MA's),

Gene: Anon\_17 Start: 12677, Stop: 12832, Start Num: 26  
Candidate Starts for Anon\_17:  
(Start: 26 @12677 has 551 MA's),

Gene: Anselm\_17 Start: 13298, Stop: 13480, Start Num: 26  
Candidate Starts for Anselm\_17:  
(Start: 13 @13250 has 1 MA's), (Start: 26 @13298 has 551 MA's),

Gene: Anthony\_16 Start: 11421, Stop: 11594, Start Num: 26  
Candidate Starts for Anthony\_16:  
(Start: 26 @11421 has 551 MA's),

Gene: Anubis\_20 Start: 12488, Stop: 12673, Start Num: 26  
Candidate Starts for Anubis\_20:  
(Start: 26 @12488 has 551 MA's), (38, 12551),

Gene: AppleCloud\_11 Start: 8384, Stop: 8566, Start Num: 26  
Candidate Starts for AppleCloud\_11:  
(Start: 14 @8336 has 1 MA's), (Start: 26 @8384 has 551 MA's),

Gene: ArcherNM\_19 Start: 14988, Stop: 15173, Start Num: 26  
Candidate Starts for ArcherNM\_19:  
(Start: 26 @14988 has 551 MA's),

Gene: Arissanae\_16 Start: 12012, Stop: 12230, Start Num: 26  
Candidate Starts for Arissanae\_16:  
(Start: 26 @12012 has 551 MA's), (33, 12051),

Gene: Artemis2UCLA\_20 Start: 13162, Stop: 13359, Start Num: 26  
Candidate Starts for Artemis2UCLA\_20:

(Start: 26 @13162 has 551 MA's),

Gene: Arturo\_15 Start: 12589, Stop: 12795, Start Num: 26

Candidate Starts for Arturo\_15:

(Start: 26 @12589 has 551 MA's),

Gene: AugsMagnumOpus\_20 Start: 12594, Stop: 12779, Start Num: 26

Candidate Starts for AugsMagnumOpus\_20:

(Start: 26 @12594 has 551 MA's), (38, 12657),

Gene: AvatarAhPeg\_16 Start: 12446, Stop: 12640, Start Num: 26

Candidate Starts for AvatarAhPeg\_16:

(Start: 26 @12446 has 551 MA's),

Gene: Avle17\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Avle17\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Ayanochan\_19 Start: 13946, Stop: 14170, Start Num: 26

Candidate Starts for Ayanochan\_19:

(Start: 17 @13922 has 5 MA's), (Start: 26 @13946 has 551 MA's), (33, 13985), (45, 14036), (48, 14048), (51, 14096), (56, 14126),

Gene: B1\_14 Start: 11811, Stop: 11987, Start Num: 26

Candidate Starts for B1\_14:

(Start: 26 @11811 has 551 MA's), (33, 11850), (34, 11862),

Gene: BABullseye\_20 Start: 13275, Stop: 13472, Start Num: 26

Candidate Starts for BABullseye\_20:

(8, 13209), (11, 13221), (19, 13254), (Start: 26 @13275 has 551 MA's),

Gene: Baby16\_16 Start: 12487, Stop: 12693, Start Num: 26

Candidate Starts for Baby16\_16:

(Start: 26 @12487 has 551 MA's),

Gene: BabyBack\_19 Start: 14848, Stop: 15012, Start Num: 26

Candidate Starts for BabyBack\_19:

(Start: 26 @14848 has 551 MA's), (49, 14947),

Gene: BabyJohn\_15 Start: 12395, Stop: 12571, Start Num: 26

Candidate Starts for BabyJohn\_15:

(Start: 26 @12395 has 551 MA's),

Gene: BabyRay\_16 Start: 12381, Stop: 12560, Start Num: 26

Candidate Starts for BabyRay\_16:

(Start: 26 @12381 has 551 MA's), (32, 12417), (33, 12420),

Gene: Bachome\_17 Start: 13754, Stop: 13921, Start Num: 26

Candidate Starts for Bachome\_17:

(22, 13736), (Start: 26 @13754 has 551 MA's), (32, 13790), (46, 13838),

Gene: Backyardigan\_16 Start: 12496, Stop: 12693, Start Num: 26

Candidate Starts for Backyardigan\_16:

(Start: 26 @12496 has 551 MA's),

Gene: Bactobuster\_18 Start: 14922, Stop: 15104, Start Num: 26  
Candidate Starts for Bactobuster\_18:  
(Start: 21 @14904 has 2 MA's), (Start: 26 @14922 has 551 MA's),

Gene: Badger\_16 Start: 12485, Stop: 12682, Start Num: 26  
Candidate Starts for Badger\_16:  
(Start: 26 @12485 has 551 MA's),

Gene: Baehexic\_18 Start: 13700, Stop: 13879, Start Num: 26  
Candidate Starts for Baehexic\_18:  
(Start: 26 @13700 has 551 MA's),

Gene: BangNhom\_15 Start: 12456, Stop: 12668, Start Num: 26  
Candidate Starts for BangNhom\_15:  
(Start: 26 @12456 has 551 MA's),

Gene: Bartimeaus\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Bartimeaus\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Battleship\_20 Start: 12431, Stop: 12601, Start Num: 26  
Candidate Starts for Battleship\_20:  
(Start: 26 @12431 has 551 MA's),

Gene: Beauxregard13\_18 Start: 12602, Stop: 12787, Start Num: 26  
Candidate Starts for Beauxregard13\_18:  
(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: Beemo\_18 Start: 13947, Stop: 14171, Start Num: 26  
Candidate Starts for Beemo\_18:  
(Start: 17 @13923 has 5 MA's), (Start: 26 @13947 has 551 MA's), (33, 13986), (45, 14037), (48, 14049), (51, 14097), (56, 14127),

Gene: Belenaria\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Belenaria\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Bellris\_15 Start: 11982, Stop: 12200, Start Num: 26  
Candidate Starts for Bellris\_15:  
(Start: 5 @11913 has 1 MA's), (12, 11937), (Start: 17 @11958 has 5 MA's), (Start: 26 @11982 has 551 MA's), (33, 12021),

Gene: BellusTerra\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for BellusTerra\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: BengiVuitton\_18 Start: 13613, Stop: 13795, Start Num: 26  
Candidate Starts for BengiVuitton\_18:  
(Start: 26 @13613 has 551 MA's), (42, 13697),

Gene: BennyP\_20 Start: 13284, Stop: 13481, Start Num: 26

Candidate Starts for BennyP\_20:  
(Start: 26 @13284 has 551 MA's),

Gene: Benvolio\_17 Start: 13288, Stop: 13470, Start Num: 26  
Candidate Starts for Benvolio\_17:  
(Start: 13 @13240 has 1 MA's), (Start: 26 @13288 has 551 MA's),

Gene: BiancaTri92\_19 Start: 14972, Stop: 15157, Start Num: 26  
Candidate Starts for BiancaTri92\_19:  
(Start: 26 @14972 has 551 MA's),

Gene: Bigflo\_18 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for Bigflo\_18:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Blackmoor\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Blackmoor\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: BlessJoy\_20 Start: 13260, Stop: 13457, Start Num: 26  
Candidate Starts for BlessJoy\_20:  
(Start: 26 @13260 has 551 MA's),

Gene: Blinn1\_20 Start: 13317, Stop: 13514, Start Num: 26  
Candidate Starts for Blinn1\_20:  
(Start: 26 @13317 has 551 MA's),

Gene: Blue7\_20 Start: 13252, Stop: 13449, Start Num: 26  
Candidate Starts for Blue7\_20:  
(Start: 26 @13252 has 551 MA's), (45, 13342),

Gene: BlueBird\_17 Start: 12155, Stop: 12334, Start Num: 26  
Candidate Starts for BlueBird\_17:  
(Start: 26 @12155 has 551 MA's), (32, 12191), (33, 12194), (54, 12299),

Gene: BobSwaget\_20 Start: 14847, Stop: 15023, Start Num: 26  
Candidate Starts for BobSwaget\_20:  
(Start: 26 @14847 has 551 MA's),

Gene: BobbyDazzler\_13 Start: 8746, Stop: 8952, Start Num: 26  
Candidate Starts for BobbyDazzler\_13:  
(Start: 14 @8698 has 1 MA's), (Start: 26 @8746 has 551 MA's),

Gene: BogosyJay\_18 Start: 13667, Stop: 13891, Start Num: 26  
Candidate Starts for BogosyJay\_18:  
(Start: 26 @13667 has 551 MA's), (45, 13757), (48, 13769), (51, 13817), (56, 13847),

Gene: Bombshell\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Bombshell\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Bonanza\_13 Start: 8675, Stop: 8881, Start Num: 26  
Candidate Starts for Bonanza\_13:

(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's),

Gene: Boohoo\_19 Start: 12316, Stop: 12486, Start Num: 26

Candidate Starts for Boohoo\_19:

(Start: 26 @12316 has 551 MA's),

Gene: Bowtie\_17 Start: 13757, Stop: 13924, Start Num: 26

Candidate Starts for Bowtie\_17:

(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: Bradman\_16 Start: 12104, Stop: 12289, Start Num: 26

Candidate Starts for Bradman\_16:

(Start: 26 @12104 has 551 MA's), (40, 12182),

Gene: Bradshaw\_13 Start: 8707, Stop: 8913, Start Num: 26

Candidate Starts for Bradshaw\_13:

(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: BreSam8\_18 Start: 12595, Stop: 12780, Start Num: 26

Candidate Starts for BreSam8\_18:

(Start: 26 @12595 has 551 MA's), (38, 12658),

Gene: Broseidon\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Broseidon\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Bruiser\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Bruiser\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Bryce\_13 Start: 8675, Stop: 8881, Start Num: 26

Candidate Starts for Bryce\_13:

(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's),

Gene: BubbleTrouble\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for BubbleTrouble\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Bud\_17 Start: 13763, Stop: 13930, Start Num: 26

Candidate Starts for Bud\_17:

(22, 13745), (Start: 26 @13763 has 551 MA's), (32, 13799), (46, 13847),

Gene: Bugatti\_16 Start: 12155, Stop: 12334, Start Num: 26

Candidate Starts for Bugatti\_16:

(Start: 26 @12155 has 551 MA's), (32, 12191), (33, 12194), (54, 12299),

Gene: Buggy\_19 Start: 13650, Stop: 13832, Start Num: 26

Candidate Starts for Buggy\_19:

(Start: 13 @13602 has 1 MA's), (Start: 26 @13650 has 551 MA's),

Gene: Bumblebee11\_16 Start: 12487, Stop: 12684, Start Num: 26

Candidate Starts for Bumblebee11\_16:

(Start: 26 @12487 has 551 MA's),

Gene: Burger\_15 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Burger\_15:  
(Start: 26 @12478 has 551 MA's),

Gene: BuzzBuzz\_17 Start: 12686, Stop: 12871, Start Num: 26  
Candidate Starts for BuzzBuzz\_17:  
(Start: 26 @12686 has 551 MA's), (38, 12749),

Gene: Bxz2\_18 Start: 12696, Stop: 12881, Start Num: 26  
Candidate Starts for Bxz2\_18:  
(Start: 26 @12696 has 551 MA's), (38, 12759),

Gene: C3\_15 Start: 13198, Stop: 13377, Start Num: 26  
Candidate Starts for C3\_15:  
(Start: 26 @13198 has 551 MA's),

Gene: CRB1\_17 Start: 13172, Stop: 13351, Start Num: 26  
Candidate Starts for CRB1\_17:  
(Start: 26 @13172 has 551 MA's), (45, 13262), (47, 13265),

Gene: Caelakin\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Caelakin\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Calvinny\_19 Start: 12679, Stop: 12861, Start Num: 26  
Candidate Starts for Calvinny\_19:  
(Start: 26 @12679 has 551 MA's),

Gene: Camperdownii\_15 Start: 12097, Stop: 12303, Start Num: 26  
Candidate Starts for Camperdownii\_15:  
(Start: 26 @12097 has 551 MA's),

Gene: Candra\_20 Start: 13318, Stop: 13515, Start Num: 26  
Candidate Starts for Candra\_20:  
(8, 13252), (11, 13264), (19, 13297), (Start: 26 @13318 has 551 MA's),

Gene: Caraxes\_16 Start: 11860, Stop: 12015, Start Num: 26  
Candidate Starts for Caraxes\_16:  
(Start: 26 @11860 has 551 MA's),

Gene: Catalina\_18 Start: 13890, Stop: 14138, Start Num: 17  
Candidate Starts for Catalina\_18:  
(Start: 17 @13890 has 5 MA's), (Start: 26 @13914 has 551 MA's), (33, 13953), (45, 14004), (48, 14016), (51, 14064), (56, 14094),

Gene: Caviar\_17 Start: 12696, Stop: 12875, Start Num: 26  
Candidate Starts for Caviar\_17:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Celestiallunch\_17 Start: 12071, Stop: 12307, Start Num: 26  
Candidate Starts for Celestiallunch\_17:  
(Start: 26 @12071 has 551 MA's), (37, 12131), (38, 12134),

Gene: Centaur\_19 Start: 13678, Stop: 13857, Start Num: 26  
Candidate Starts for Centaur\_19:  
(Start: 26 @13678 has 551 MA's),

Gene: CentreCat\_16 Start: 12479, Stop: 12685, Start Num: 26  
Candidate Starts for CentreCat\_16:  
(Start: 26 @12479 has 551 MA's),

Gene: Cerulean\_16 Start: 12457, Stop: 12669, Start Num: 26  
Candidate Starts for Cerulean\_16:  
(Start: 26 @12457 has 551 MA's),

Gene: ChampagnePapi\_16 Start: 12456, Stop: 12668, Start Num: 26  
Candidate Starts for ChampagnePapi\_16:  
(Start: 26 @12456 has 551 MA's),

Gene: Changeling\_20 Start: 15040, Stop: 15222, Start Num: 26  
Candidate Starts for Changeling\_20:  
(Start: 26 @15040 has 551 MA's),

Gene: Chaph\_16 Start: 12487, Stop: 12693, Start Num: 26  
Candidate Starts for Chaph\_16:  
(Start: 26 @12487 has 551 MA's),

Gene: Chargerpower\_17 Start: 12361, Stop: 12588, Start Num: 26  
Candidate Starts for Chargerpower\_17:  
(9, 12304), (16, 12337), (Start: 26 @12361 has 551 MA's), (33, 12400),

Gene: Charm\_17 Start: 12095, Stop: 12319, Start Num: 26  
Candidate Starts for Charm\_17:  
(Start: 26 @12095 has 551 MA's), (33, 12134),

Gene: Chartreuse\_20 Start: 13231, Stop: 13428, Start Num: 26  
Candidate Starts for Chartreuse\_20:  
(Start: 26 @13231 has 551 MA's),

Gene: Che12\_19 Start: 12126, Stop: 12281, Start Num: 26  
Candidate Starts for Che12\_19:  
(Start: 26 @12126 has 551 MA's),

Gene: ChipMunk\_19 Start: 13586, Stop: 13768, Start Num: 26  
Candidate Starts for ChipMunk\_19:  
(Start: 26 @13586 has 551 MA's),

Gene: Chiqui\_15 Start: 12395, Stop: 12571, Start Num: 26  
Candidate Starts for Chiqui\_15:  
(Start: 26 @12395 has 551 MA's),

Gene: Chupacabra\_16 Start: 12256, Stop: 12441, Start Num: 26  
Candidate Starts for Chupacabra\_16:  
(Start: 26 @12256 has 551 MA's),

Gene: Cici\_16 Start: 12478, Stop: 12675, Start Num: 26  
Candidate Starts for Cici\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Cindaradix\_15 Start: 12200, Stop: 12409, Start Num: 26  
Candidate Starts for Cindaradix\_15:  
(Start: 26 @12200 has 551 MA's),

Gene: Cintron\_16 Start: 12526, Stop: 12732, Start Num: 26  
Candidate Starts for Cintron\_16:  
(Start: 26 @12526 has 551 MA's),

Gene: Citius\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Citius\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Clammy\_16 Start: 12155, Stop: 12334, Start Num: 26  
Candidate Starts for Clammy\_16:  
(Start: 26 @12155 has 551 MA's), (32, 12191), (33, 12194), (54, 12299),

Gene: Clarenza\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Clarenza\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: CloudWang3\_20 Start: 13262, Stop: 13459, Start Num: 26  
Candidate Starts for CloudWang3\_20:  
(Start: 26 @13262 has 551 MA's),

Gene: ClownCar\_19 Start: 12671, Stop: 12853, Start Num: 26  
Candidate Starts for ClownCar\_19:  
(Start: 26 @12671 has 551 MA's),

Gene: Cocoaberry\_16 Start: 12482, Stop: 12688, Start Num: 26  
Candidate Starts for Cocoaberry\_16:  
(Start: 26 @12482 has 551 MA's),

Gene: CogOmlette\_15 Start: 11982, Stop: 12200, Start Num: 26  
Candidate Starts for CogOmlette\_15:  
(Start: 5 @11913 has 1 MA's), (12, 11937), (Start: 17 @11958 has 5 MA's), (Start: 26 @11982 has 551 MA's), (33, 12021),

Gene: Colbster\_18 Start: 12602, Stop: 12787, Start Num: 26  
Candidate Starts for Colbster\_18:  
(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: Colin\_21 Start: 14879, Stop: 15061, Start Num: 26  
Candidate Starts for Colin\_21:  
(Start: 26 @14879 has 551 MA's),

Gene: Commander\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Commander\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Connomayer\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Connomayer\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Conquerage\_18 Start: 13943, Stop: 14167, Start Num: 26  
Candidate Starts for Conquerage\_18:  
(Start: 26 @13943 has 551 MA's), (33, 13982), (45, 14033), (48, 14045), (51, 14093), (56, 14123),

Gene: Cookiedough\_20 Start: 13275, Stop: 13472, Start Num: 26  
Candidate Starts for Cookiedough\_20:  
(8, 13209), (11, 13221), (19, 13254), (Start: 26 @13275 has 551 MA's),

Gene: CosmicSans\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for CosmicSans\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Croquant\_19 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for Croquant\_19:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Crucio\_17 Start: 13133, Stop: 13315, Start Num: 26  
Candidate Starts for Crucio\_17:  
(Start: 13 @13085 has 1 MA's), (Start: 26 @13133 has 551 MA's),

Gene: Cullens\_18 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for Cullens\_18:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: D29\_18 Start: 13113, Stop: 13268, Start Num: 26  
Candidate Starts for D29\_18:  
(Start: 26 @13113 has 551 MA's),

Gene: D32\_20 Start: 13113, Stop: 13268, Start Num: 26  
Candidate Starts for D32\_20:  
(Start: 26 @13113 has 551 MA's),

Gene: DBQu4n\_20 Start: 13113, Stop: 13268, Start Num: 26  
Candidate Starts for DBQu4n\_20:  
(Start: 26 @13113 has 551 MA's),

Gene: DaHudson\_18 Start: 12594, Stop: 12779, Start Num: 26  
Candidate Starts for DaHudson\_18:  
(Start: 26 @12594 has 551 MA's), (38, 12657),

Gene: DaVinci\_20 Start: 13285, Stop: 13482, Start Num: 26  
Candidate Starts for DaVinci\_20:  
(Start: 26 @13285 has 551 MA's),

Gene: Daishi\_17 Start: 11527, Stop: 11712, Start Num: 26  
Candidate Starts for Daishi\_17:  
(Start: 26 @11527 has 551 MA's), (38, 11590),

Gene: Dalmatian\_17 Start: 13283, Stop: 13465, Start Num: 26

Candidate Starts for Dalmatian\_17:  
(Start: 13 @13235 has 1 MA's), (Start: 26 @13283 has 551 MA's),

Gene: Darrell\_19 Start: 14104, Stop: 14328, Start Num: 26  
Candidate Starts for Darrell\_19:  
(Start: 26 @14104 has 551 MA's), (45, 14194), (48, 14206), (51, 14254), (56, 14284),

Gene: DarthPhader\_18 Start: 14100, Stop: 14303, Start Num: 26  
Candidate Starts for DarthPhader\_18:  
(16, 14076), (18, 14079), (Start: 26 @14100 has 551 MA's), (30, 14130),

Gene: Datway\_16 Start: 12496, Stop: 12693, Start Num: 26  
Candidate Starts for Datway\_16:  
(Start: 26 @12496 has 551 MA's),

Gene: Deano\_16 Start: 12486, Stop: 12692, Start Num: 26  
Candidate Starts for Deano\_16:  
(Start: 26 @12486 has 551 MA's),

Gene: DeerParkTS\_18 Start: 13243, Stop: 13428, Start Num: 26  
Candidate Starts for DeerParkTS\_18:  
(Start: 26 @13243 has 551 MA's),

Gene: DekHockey33\_19 Start: 12438, Stop: 12608, Start Num: 26  
Candidate Starts for DekHockey33\_19:  
(Start: 26 @12438 has 551 MA's),

Gene: Deloris\_18 Start: 13613, Stop: 13795, Start Num: 26  
Candidate Starts for Deloris\_18:  
(Start: 26 @13613 has 551 MA's), (42, 13697),

Gene: DelvinSonDorr\_19 Start: 13275, Stop: 13472, Start Num: 26  
Candidate Starts for DelvinSonDorr\_19:  
(Start: 26 @13275 has 551 MA's),

Gene: Dhanush\_16 Start: 12481, Stop: 12687, Start Num: 26  
Candidate Starts for Dhanush\_16:  
(Start: 26 @12481 has 551 MA's),

Gene: Dieselweasel\_18 Start: 12603, Stop: 12788, Start Num: 26  
Candidate Starts for Dieselweasel\_18:  
(Start: 26 @12603 has 551 MA's), (38, 12666),

Gene: Dignity\_19 Start: 13595, Stop: 13777, Start Num: 26  
Candidate Starts for Dignity\_19:  
(Start: 13 @13547 has 1 MA's), (Start: 26 @13595 has 551 MA's),

Gene: Dinger\_13 Start: 8671, Stop: 8877, Start Num: 26  
Candidate Starts for Dinger\_13:  
(Start: 14 @8623 has 1 MA's), (Start: 26 @8671 has 551 MA's), (45, 8764),

Gene: DirtyDunning\_16 Start: 12474, Stop: 12680, Start Num: 26  
Candidate Starts for DirtyDunning\_16:

(Start: 26 @12474 has 551 MA's),

Gene: DontArgue\_15 Start: 10509, Stop: 10697, Start Num: 26

Candidate Starts for DontArgue\_15:

(Start: 26 @10509 has 551 MA's),

Gene: Dorothea\_20 Start: 13286, Stop: 13483, Start Num: 26

Candidate Starts for Dorothea\_20:

(Start: 26 @13286 has 551 MA's),

Gene: Drake55\_19 Start: 13696, Stop: 13875, Start Num: 26

Candidate Starts for Drake55\_19:

(Start: 26 @13696 has 551 MA's),

Gene: Drake94\_15 Start: 10353, Stop: 10532, Start Num: 26

Candidate Starts for Drake94\_15:

(Start: 26 @10353 has 551 MA's),

Gene: DreamTeam1\_17 Start: 12095, Stop: 12319, Start Num: 26

Candidate Starts for DreamTeam1\_17:

(Start: 26 @12095 has 551 MA's), (33, 12134),

Gene: DroogsArmy\_17 Start: 13841, Stop: 14029, Start Num: 26

Candidate Starts for DroogsArmy\_17:

(Start: 26 @13841 has 551 MA's),

Gene: DropBear\_16 Start: 12215, Stop: 12394, Start Num: 26

Candidate Starts for DropBear\_16:

(Start: 26 @12215 has 551 MA's), (32, 12251), (33, 12254), (54, 12359),

Gene: Druantia\_16 Start: 12479, Stop: 12685, Start Num: 26

Candidate Starts for Druantia\_16:

(Start: 26 @12479 has 551 MA's),

Gene: DudeLittle\_17 Start: 13285, Stop: 13467, Start Num: 26

Candidate Starts for DudeLittle\_17:

(Start: 13 @13237 has 1 MA's), (Start: 26 @13285 has 551 MA's),

Gene: Duplo\_20 Start: 13154, Stop: 13309, Start Num: 26

Candidate Starts for Duplo\_20:

(Start: 26 @13154 has 551 MA's),

Gene: DustyMartin\_19 Start: 12326, Stop: 12511, Start Num: 26

Candidate Starts for DustyMartin\_19:

(Start: 26 @12326 has 551 MA's),

Gene: EZMoney23\_21 Start: 15171, Stop: 15350, Start Num: 26

Candidate Starts for EZMoney23\_21:

(Start: 26 @15171 has 551 MA's),

Gene: Eagle\_15 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Eagle\_15:

(Start: 26 @12478 has 551 MA's),

Gene: EagleEye\_19 Start: 13431, Stop: 13613, Start Num: 26  
Candidate Starts for EagleEye\_19:  
(Start: 26 @13431 has 551 MA's),

Gene: Eaglepride\_17 Start: 12258, Stop: 12449, Start Num: 26  
Candidate Starts for Eaglepride\_17:  
(Start: 26 @12258 has 551 MA's),

Gene: Eapen\_16 Start: 12477, Stop: 12683, Start Num: 26  
Candidate Starts for Eapen\_16:  
(Start: 26 @12477 has 551 MA's),

Gene: Ebony\_17 Start: 13806, Stop: 13973, Start Num: 26  
Candidate Starts for Ebony\_17:  
(22, 13788), (Start: 26 @13806 has 551 MA's), (32, 13842), (46, 13890),

Gene: Echild\_17 Start: 13288, Stop: 13470, Start Num: 26  
Candidate Starts for Echild\_17:  
(Start: 13 @13240 has 1 MA's), (Start: 26 @13288 has 551 MA's),

Gene: Edison31\_16 Start: 12290, Stop: 12475, Start Num: 26  
Candidate Starts for Edison31\_16:  
(Start: 26 @12290 has 551 MA's),

Gene: EdogawaKiddo\_16 Start: 13913, Stop: 14137, Start Num: 26  
Candidate Starts for EdogawaKiddo\_16:  
(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: Eidsmoe\_18 Start: 13943, Stop: 14167, Start Num: 26  
Candidate Starts for Eidsmoe\_18:  
(Start: 26 @13943 has 551 MA's), (33, 13982), (45, 14033), (48, 14045), (51, 14093), (56, 14123),

Gene: Elephantoon\_18 Start: 13530, Stop: 13757, Start Num: 26  
Candidate Starts for Elephantoon\_18:  
(Start: 26 @13530 has 551 MA's), (45, 13620), (48, 13632), (51, 13680), (56, 13710),

Gene: Elle\_17 Start: 12045, Stop: 12200, Start Num: 26  
Candidate Starts for Elle\_17:  
(Start: 26 @12045 has 551 MA's),

Gene: EmyBug\_18 Start: 13943, Stop: 14167, Start Num: 26  
Candidate Starts for EmyBug\_18:  
(Start: 26 @13943 has 551 MA's), (33, 13982), (45, 14033), (48, 14045), (51, 14093), (56, 14123),

Gene: EpicPhail\_18 Start: 12602, Stop: 12787, Start Num: 26  
Candidate Starts for EpicPhail\_18:  
(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: Epsocamisio\_19 Start: 12316, Stop: 12486, Start Num: 26  
Candidate Starts for Epsocamisio\_19:  
(Start: 26 @12316 has 551 MA's),

Gene: Equemioh13\_19 Start: 13681, Stop: 13860, Start Num: 26  
Candidate Starts for Equemioh13\_19:  
(Start: 26 @13681 has 551 MA's),

Gene: EricB\_20 Start: 13275, Stop: 13472, Start Num: 26  
Candidate Starts for EricB\_20:  
(Start: 26 @13275 has 551 MA's),

Gene: Erik\_13 Start: 8706, Stop: 8912, Start Num: 26  
Candidate Starts for Erik\_13:  
(Start: 20 @8685 has 1 MA's), (Start: 26 @8706 has 551 MA's), (45, 8799), (57, 8889),

Gene: Eris\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Eris\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Eros\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Eros\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Espica\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Espica\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Et2Brutus\_16 Start: 13760, Stop: 13927, Start Num: 26  
Candidate Starts for Et2Brutus\_16:  
(22, 13742), (Start: 26 @13760 has 551 MA's), (32, 13796), (46, 13844),

Gene: EtoileNova\_17 Start: 12699, Stop: 12878, Start Num: 26  
Candidate Starts for EtoileNova\_17:  
(Start: 23 @12684 has 2 MA's), (Start: 26 @12699 has 551 MA's),

Gene: Eurydice\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Eurydice\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: EvilGenius\_19 Start: 13596, Stop: 13778, Start Num: 26  
Candidate Starts for EvilGenius\_19:  
(Start: 26 @13596 has 551 MA's),

Gene: ExplosioNervosa\_18 Start: 13946, Stop: 14170, Start Num: 26  
Candidate Starts for ExplosioNervosa\_18:  
(Start: 17 @13922 has 5 MA's), (Start: 26 @13946 has 551 MA's), (33, 13985), (45, 14036), (48, 14048), (51, 14096), (56, 14126),

Gene: Fameo\_17 Start: 13210, Stop: 13392, Start Num: 26  
Candidate Starts for Fameo\_17:  
(Start: 13 @13162 has 1 MA's), (Start: 26 @13210 has 551 MA's), (40, 13288),

Gene: Farber\_18 Start: 12595, Stop: 12780, Start Num: 26  
Candidate Starts for Farber\_18:  
(Start: 26 @12595 has 551 MA's), (38, 12658),

Gene: FatCactus\_15 Start: 11349, Stop: 11525, Start Num: 26

Candidate Starts for FatCactus\_15:

(Start: 26 @11349 has 551 MA's), (30, 11379),

Gene: Fayely\_18 Start: 13946, Stop: 14170, Start Num: 26

Candidate Starts for Fayely\_18:

(Start: 17 @13922 has 5 MA's), (Start: 26 @13946 has 551 MA's), (33, 13985), (45, 14036), (48, 14048), (51, 14096), (56, 14126),

Gene: Fernando\_18 Start: 12600, Stop: 12785, Start Num: 26

Candidate Starts for Fernando\_18:

(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Fibonacci\_17 Start: 13760, Stop: 13927, Start Num: 26

Candidate Starts for Fibonacci\_17:

(22, 13742), (Start: 26 @13760 has 551 MA's), (32, 13796), (46, 13844),

Gene: FiringLine\_17 Start: 13133, Stop: 13315, Start Num: 26

Candidate Starts for FiringLine\_17:

(Start: 13 @13085 has 1 MA's), (Start: 26 @13133 has 551 MA's),

Gene: First\_0017 Start: 13206, Stop: 13382, Start Num: 26

Candidate Starts for First\_0017:

(Start: 26 @13206 has 551 MA's),

Gene: Flare16\_17 Start: 13239, Stop: 13418, Start Num: 26

Candidate Starts for Flare16\_17:

(Start: 26 @13239 has 551 MA's),

Gene: Flaverint\_17 Start: 13757, Stop: 13924, Start Num: 26

Candidate Starts for Flaverint\_17:

(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: Florean\_16 Start: 12475, Stop: 12681, Start Num: 26

Candidate Starts for Florean\_16:

(Start: 26 @12475 has 551 MA's),

Gene: Flux\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Flux\_16:

(Start: 26 @12478 has 551 MA's),

Gene: FlyCatcher\_20 Start: 14171, Stop: 14332, Start Num: 26

Candidate Starts for FlyCatcher\_20:

(Start: 26 @14171 has 551 MA's), (31, 14204), (33, 14210), (39, 14243),

Gene: ForesterFrank\_18 Start: 14707, Stop: 14889, Start Num: 26

Candidate Starts for ForesterFrank\_18:

(Start: 26 @14707 has 551 MA's),

Gene: Fred313\_16 Start: 11876, Stop: 12052, Start Num: 26

Candidate Starts for Fred313\_16:

(Start: 26 @11876 has 551 MA's), (33, 11915), (34, 11927),

Gene: Funston\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Funston\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Gadost\_16 Start: 12482, Stop: 12688, Start Num: 26  
Candidate Starts for Gadost\_16:  
(Start: 26 @12482 has 551 MA's),

Gene: Gail\_16 Start: 12246, Stop: 12479, Start Num: 24  
Candidate Starts for Gail\_16:  
(Start: 24 @12246 has 1 MA's), (33, 12288),

Gene: Garak\_21 Start: 13280, Stop: 13477, Start Num: 26  
Candidate Starts for Garak\_21:  
(8, 13214), (11, 13226), (19, 13259), (Start: 26 @13280 has 551 MA's),

Gene: GaugeLDP\_19 Start: 14527, Stop: 14685, Start Num: 26  
Candidate Starts for GaugeLDP\_19:  
(Start: 26 @14527 has 551 MA's),

Gene: Gemma\_18 Start: 12679, Stop: 12861, Start Num: 26  
Candidate Starts for Gemma\_18:  
(Start: 26 @12679 has 551 MA's),

Gene: Georgie2\_18 Start: 13134, Stop: 13316, Start Num: 26  
Candidate Starts for Georgie2\_18:  
(Start: 13 @13086 has 1 MA's), (Start: 26 @13134 has 551 MA's),

Gene: Gilberta\_17 Start: 13754, Stop: 13921, Start Num: 26  
Candidate Starts for Gilberta\_17:  
(22, 13736), (Start: 26 @13754 has 551 MA's), (32, 13790), (46, 13838),

Gene: GingkoMaracino\_18 Start: 12488, Stop: 12673, Start Num: 26  
Candidate Starts for GingkoMaracino\_18:  
(Start: 26 @12488 has 551 MA's), (38, 12551),

Gene: Giroux\_17 Start: 12155, Stop: 12334, Start Num: 26  
Candidate Starts for Giroux\_17:  
(Start: 26 @12155 has 551 MA's), (32, 12191), (33, 12194), (54, 12299),

Gene: Gladiator\_20 Start: 13252, Stop: 13449, Start Num: 26  
Candidate Starts for Gladiator\_20:  
(Start: 26 @13252 has 551 MA's), (45, 13342),

Gene: Gollum\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Gollum\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Goose\_16 Start: 12257, Stop: 12442, Start Num: 26  
Candidate Starts for Goose\_16:  
(Start: 26 @12257 has 551 MA's),

Gene: Gratitude\_18 Start: 13681, Stop: 13860, Start Num: 26  
Candidate Starts for Gratitude\_18:  
(Start: 26 @13681 has 551 MA's),

Gene: GreedyLawyer\_20 Start: 13284, Stop: 13481, Start Num: 26  
Candidate Starts for GreedyLawyer\_20:  
(Start: 26 @13284 has 551 MA's),

Gene: Grif\_18 Start: 12685, Stop: 12870, Start Num: 26  
Candidate Starts for Grif\_18:  
(Start: 26 @12685 has 551 MA's), (38, 12748),

Gene: Groupthink\_19 Start: 12679, Stop: 12861, Start Num: 26  
Candidate Starts for Groupthink\_19:  
(Start: 26 @12679 has 551 MA's),

Gene: Grub\_18 Start: 12594, Stop: 12779, Start Num: 26  
Candidate Starts for Grub\_18:  
(Start: 26 @12594 has 551 MA's), (38, 12657),

Gene: Grum1\_18 Start: 12595, Stop: 12780, Start Num: 26  
Candidate Starts for Grum1\_18:  
(Start: 26 @12595 has 551 MA's), (38, 12658),

Gene: Gruunaga\_20 Start: 13252, Stop: 13449, Start Num: 26  
Candidate Starts for Gruunaga\_20:  
(Start: 26 @13252 has 551 MA's), (45, 13342),

Gene: GtownJaz\_18 Start: 12603, Stop: 12788, Start Num: 26  
Candidate Starts for GtownJaz\_18:  
(Start: 26 @12603 has 551 MA's), (38, 12666),

Gene: Gwennie\_17 Start: 12602, Stop: 12787, Start Num: 26  
Candidate Starts for Gwennie\_17:  
(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: HINdeR\_16 Start: 13946, Stop: 14134, Start Num: 26  
Candidate Starts for HINdeR\_16:  
(Start: 26 @13946 has 551 MA's),

Gene: HamSlice\_15 Start: 12476, Stop: 12682, Start Num: 26  
Candidate Starts for HamSlice\_15:  
(Start: 26 @12476 has 551 MA's),

Gene: Hammer\_20 Start: 13267, Stop: 13464, Start Num: 26  
Candidate Starts for Hammer\_20:  
(Start: 26 @13267 has 551 MA's), (45, 13357),

Gene: Hanray\_17 Start: 13917, Stop: 14141, Start Num: 26  
Candidate Starts for Hanray\_17:  
(6, 13851), (Start: 26 @13917 has 551 MA's), (33, 13956), (45, 14007), (48, 14019), (51, 14067), (56, 14097),

Gene: Happiness\_16 Start: 12484, Stop: 12690, Start Num: 26  
Candidate Starts for Happiness\_16:  
(Start: 26 @12484 has 551 MA's),

Gene: Harlequin\_13 Start: 8675, Stop: 8857, Start Num: 26  
Candidate Starts for Harlequin\_13:  
(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's), (45, 8768),

Gene: HarryHoudini\_19 Start: 13696, Stop: 13875, Start Num: 26  
Candidate Starts for HarryHoudini\_19:  
(Start: 26 @13696 has 551 MA's),

Gene: HashRod\_19 Start: 12686, Stop: 12871, Start Num: 26  
Candidate Starts for HashRod\_19:  
(Start: 26 @12686 has 551 MA's), (38, 12749),

Gene: HaveUMetTed\_19 Start: 12673, Stop: 12855, Start Num: 26  
Candidate Starts for HaveUMetTed\_19:  
(Start: 26 @12673 has 551 MA's),

Gene: Heathen\_16 Start: 11956, Stop: 12135, Start Num: 26  
Candidate Starts for Heathen\_16:  
(Start: 26 @11956 has 551 MA's), (32, 11992), (33, 11995), (54, 12100),

Gene: Heffalump\_19 Start: 15012, Stop: 15194, Start Num: 26  
Candidate Starts for Heffalump\_19:  
(Start: 26 @15012 has 551 MA's), (40, 15090),

Gene: HelDan\_16 Start: 12208, Stop: 12387, Start Num: 26  
Candidate Starts for HelDan\_16:  
(Start: 26 @12208 has 551 MA's), (32, 12244), (33, 12247), (54, 12352),

Gene: Heliosoles\_18 Start: 12679, Stop: 12861, Start Num: 26  
Candidate Starts for Heliosoles\_18:  
(Start: 26 @12679 has 551 MA's),

Gene: Helmet\_20 Start: 13280, Stop: 13477, Start Num: 26  
Candidate Starts for Helmet\_20:  
(8, 13214), (11, 13226), (19, 13259), (Start: 26 @13280 has 551 MA's),

Gene: Hercules11\_18 Start: 12609, Stop: 12794, Start Num: 26  
Candidate Starts for Hercules11\_18:  
(Start: 26 @12609 has 551 MA's), (38, 12672),

Gene: Hexamo\_20 Start: 13234, Stop: 13431, Start Num: 26  
Candidate Starts for Hexamo\_20:  
(Start: 26 @13234 has 551 MA's),

Gene: HippoHollow\_18 Start: 14946, Stop: 15134, Start Num: 26  
Candidate Starts for HippoHollow\_18:  
(Start: 13 @14898 has 1 MA's), (Start: 26 @14946 has 551 MA's),

Gene: Hiro\_13 Start: 8675, Stop: 8857, Start Num: 26

Candidate Starts for Hiro\_13:  
(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's),

Gene: Horex\_17 Start: 13917, Stop: 14141, Start Num: 26  
Candidate Starts for Horex\_17:  
(6, 13851), (Start: 26 @13917 has 551 MA's), (33, 13956), (45, 14007), (48, 14019), (51, 14067), (56, 14097),

Gene: Holli\_16 Start: 12268, Stop: 12474, Start Num: 26  
Candidate Starts for Holli\_16:  
(Start: 26 @12268 has 551 MA's),

Gene: Hookmount\_17 Start: 12696, Stop: 12875, Start Num: 26  
Candidate Starts for Hookmount\_17:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Hoot\_20 Start: 13263, Stop: 13460, Start Num: 26  
Candidate Starts for Hoot\_20:  
(Start: 26 @13263 has 551 MA's),

Gene: HortumSL17\_18 Start: 13889, Stop: 14137, Start Num: 17  
Candidate Starts for HortumSL17\_18:  
(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: Houdini22\_16 Start: 12482, Stop: 12688, Start Num: 26  
Candidate Starts for Houdini22\_16:  
(Start: 26 @12482 has 551 MA's),

Gene: Hutc2\_17 Start: 13760, Stop: 13927, Start Num: 26  
Candidate Starts for Hutc2\_17:  
(22, 13742), (Start: 26 @13760 has 551 MA's), (32, 13796), (46, 13844),

Gene: Huxley\_16 Start: 12542, Stop: 12748, Start Num: 26  
Candidate Starts for Huxley\_16:  
(Start: 26 @12542 has 551 MA's),

Gene: ICleared\_16 Start: 12476, Stop: 12682, Start Num: 26  
Candidate Starts for ICleared\_16:  
(Start: 26 @12476 has 551 MA's),

Gene: Iceman\_17 Start: 12767, Stop: 12973, Start Num: 26  
Candidate Starts for Iceman\_17:  
(Start: 26 @12767 has 551 MA's),

Gene: Idleandcovert\_16 Start: 12155, Stop: 12334, Start Num: 26  
Candidate Starts for Idleandcovert\_16:  
(Start: 26 @12155 has 551 MA's), (32, 12191), (33, 12194), (54, 12299),

Gene: InLimbo\_8 Start: 5358, Stop: 5504, Start Num: 36  
Candidate Starts for InLimbo\_8:  
(Start: 36 @5358 has 3 MA's), (41, 5379),

Gene: Indra\_20 Start: 13279, Stop: 13476, Start Num: 26

Candidate Starts for Indra\_20:

(Start: 26 @13279 has 551 MA's),

Gene: Insomnia\_17 Start: 13809, Stop: 13976, Start Num: 26

Candidate Starts for Insomnia\_17:

(22, 13791), (Start: 26 @13809 has 551 MA's), (32, 13845), (46, 13893),

Gene: Iracema64\_16 Start: 12456, Stop: 12668, Start Num: 26

Candidate Starts for Iracema64\_16:

(Start: 26 @12456 has 551 MA's),

Gene: IronMan\_19 Start: 14887, Stop: 15060, Start Num: 26

Candidate Starts for IronMan\_19:

(Start: 26 @14887 has 551 MA's), (38, 14950),

Gene: Isca\_16 Start: 12055, Stop: 12222, Start Num: 26

Candidate Starts for Isca\_16:

(Start: 26 @12055 has 551 MA's), (33, 12094),

Gene: Isiphiwo\_20 Start: 13275, Stop: 13472, Start Num: 26

Candidate Starts for Isiphiwo\_20:

(8, 13209), (11, 13221), (19, 13254), (Start: 26 @13275 has 551 MA's),

Gene: Iwokeuplikedis\_18 Start: 13175, Stop: 13345, Start Num: 26

Candidate Starts for Iwokeuplikedis\_18:

(Start: 25 @13172 has 3 MA's), (Start: 26 @13175 has 551 MA's),

Gene: JF2\_16 Start: 11811, Stop: 11987, Start Num: 26

Candidate Starts for JF2\_16:

(Start: 26 @11811 has 551 MA's), (33, 11850), (34, 11862),

Gene: JF4\_16 Start: 11811, Stop: 11987, Start Num: 26

Candidate Starts for JF4\_16:

(Start: 26 @11811 has 551 MA's), (33, 11850), (34, 11862),

Gene: JHC117\_18 Start: 12600, Stop: 12785, Start Num: 26

Candidate Starts for JHC117\_18:

(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: JSwag\_19 Start: 12302, Stop: 12472, Start Num: 26

Candidate Starts for JSwag\_19:

(Start: 26 @12302 has 551 MA's),

Gene: Jaan\_20 Start: 15276, Stop: 15458, Start Num: 26

Candidate Starts for Jaan\_20:

(Start: 21 @15258 has 2 MA's), (Start: 26 @15276 has 551 MA's),

Gene: Jabith\_17 Start: 13809, Stop: 13976, Start Num: 26

Candidate Starts for Jabith\_17:

(22, 13791), (Start: 26 @13809 has 551 MA's), (32, 13845), (46, 13893),

Gene: Jaykayelowell\_16 Start: 12474, Stop: 12680, Start Num: 26

Candidate Starts for Jaykayelowell\_16:  
(Start: 26 @12474 has 551 MA's),

Gene: Jeeves\_16 Start: 12289, Stop: 12522, Start Num: 25  
Candidate Starts for Jeeves\_16:  
(16, 12262), (Start: 25 @12289 has 3 MA's), (33, 12331),

Gene: Jeffabunny\_20 Start: 13286, Stop: 13483, Start Num: 26  
Candidate Starts for Jeffabunny\_20:  
(Start: 26 @13286 has 551 MA's), (45, 13376),

Gene: JenCasNa\_18 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for JenCasNa\_18:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: JeppNRM\_19 Start: 12677, Stop: 12859, Start Num: 26  
Candidate Starts for JeppNRM\_19:  
(Start: 26 @12677 has 551 MA's),

Gene: Jerm\_19 Start: 13563, Stop: 13793, Start Num: 13  
Candidate Starts for Jerm\_19:  
(Start: 13 @13563 has 1 MA's), (Start: 26 @13611 has 551 MA's),

Gene: Jester\_13 Start: 8675, Stop: 8857, Start Num: 26  
Candidate Starts for Jester\_13:  
(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's), (45, 8768),

Gene: JetBlade\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for JetBlade\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: JewelBug\_20 Start: 13287, Stop: 13484, Start Num: 26  
Candidate Starts for JewelBug\_20:  
(Start: 26 @13287 has 551 MA's),

Gene: Jiawan\_17 Start: 13949, Stop: 14173, Start Num: 26  
Candidate Starts for Jiawan\_17:  
(Start: 17 @13925 has 5 MA's), (Start: 26 @13949 has 551 MA's), (33, 13988), (45, 14039), (48, 14051), (56, 14129),

Gene: Jobu08\_18 Start: 12669, Stop: 12854, Start Num: 26  
Candidate Starts for Jobu08\_18:  
(Start: 26 @12669 has 551 MA's), (38, 12732),

Gene: JoongJeon\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for JoongJeon\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Jordennis\_20 Start: 13275, Stop: 13472, Start Num: 26  
Candidate Starts for Jordennis\_20:  
(8, 13209), (11, 13221), (19, 13254), (Start: 26 @13275 has 551 MA's),

Gene: Joselito\_17 Start: 13757, Stop: 13924, Start Num: 26

Candidate Starts for Joselito\_17:  
(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: JoshKayV\_19 Start: 13615, Stop: 13797, Start Num: 26  
Candidate Starts for JoshKayV\_19:  
(Start: 13 @13567 has 1 MA's), (Start: 26 @13615 has 551 MA's),

Gene: Journey13\_15 Start: 12341, Stop: 12505, Start Num: 26  
Candidate Starts for Journey13\_15:  
(Start: 26 @12341 has 551 MA's), (33, 12377),

Gene: Jsquared\_16 Start: 12051, Stop: 12206, Start Num: 26  
Candidate Starts for Jsquared\_16:  
(Start: 26 @12051 has 551 MA's), (38, 12114),

Gene: KADY\_19 Start: 12686, Stop: 12871, Start Num: 26  
Candidate Starts for KADY\_19:  
(Start: 26 @12686 has 551 MA's), (38, 12749),

Gene: KFPoly\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for KFPoly\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Kachowdy\_16 Start: 12208, Stop: 12387, Start Num: 26  
Candidate Starts for Kachowdy\_16:  
(Start: 26 @12208 has 551 MA's), (32, 12244), (33, 12247), (54, 12352),

Gene: Kalb97\_19 Start: 12677, Stop: 12859, Start Num: 26  
Candidate Starts for Kalb97\_19:  
(Start: 26 @12677 has 551 MA's),

Gene: Kalnoky\_19 Start: 12679, Stop: 12861, Start Num: 26  
Candidate Starts for Kalnoky\_19:  
(Start: 26 @12679 has 551 MA's),

Gene: Kalpine\_20 Start: 14973, Stop: 15155, Start Num: 26  
Candidate Starts for Kalpine\_20:  
(Start: 26 @14973 has 551 MA's),

Gene: Kampy\_16 Start: 12476, Stop: 12682, Start Num: 26  
Candidate Starts for Kampy\_16:  
(Start: 26 @12476 has 551 MA's),

Gene: Katalie136\_16 Start: 12487, Stop: 12684, Start Num: 26  
Candidate Starts for Katalie136\_16:  
(Start: 26 @12487 has 551 MA's),

Gene: KatherineG\_19 Start: 12438, Stop: 12608, Start Num: 26  
Candidate Starts for KatherineG\_19:  
(Start: 26 @12438 has 551 MA's),

Gene: Kazan\_20 Start: 13290, Stop: 13487, Start Num: 26  
Candidate Starts for Kazan\_20:

(Start: 26 @13290 has 551 MA's),

Gene: KekoraPapaka\_15 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for KekoraPapaka\_15:

(Start: 26 @12478 has 551 MA's),

Gene: Kerberos\_20 Start: 13113, Stop: 13268, Start Num: 26

Candidate Starts for Kerberos\_20:

(Start: 26 @13113 has 551 MA's),

Gene: Keziacharles14\_16 Start: 12056, Stop: 12274, Start Num: 26

Candidate Starts for Keziacharles14\_16:

(Start: 26 @12056 has 551 MA's), (33, 12095),

Gene: Kimba\_17 Start: 13809, Stop: 13976, Start Num: 26

Candidate Starts for Kimba\_17:

(22, 13791), (Start: 26 @13809 has 551 MA's), (32, 13845), (46, 13893),

Gene: Kimona\_13 Start: 9941, Stop: 10147, Start Num: 26

Candidate Starts for Kimona\_13:

(Start: 26 @9941 has 551 MA's), (38, 10004), (42, 10025), (58, 10127),

Gene: KingCyrus\_19 Start: 13586, Stop: 13768, Start Num: 26

Candidate Starts for KingCyrus\_19:

(Start: 26 @13586 has 551 MA's),

Gene: Kingmustik0402\_16 Start: 12470, Stop: 12676, Start Num: 26

Candidate Starts for Kingmustik0402\_16:

(Start: 26 @12470 has 551 MA's),

Gene: Kinmap\_16 Start: 13042, Stop: 13212, Start Num: 26

Candidate Starts for Kinmap\_16:

(15, 13003), (Start: 26 @13042 has 551 MA's),

Gene: Kipper29\_20 Start: 13284, Stop: 13481, Start Num: 26

Candidate Starts for Kipper29\_20:

(Start: 26 @13284 has 551 MA's),

Gene: KittenMittens\_15 Start: 10361, Stop: 10540, Start Num: 26

Candidate Starts for KittenMittens\_15:

(Start: 26 @10361 has 551 MA's),

Gene: Klodlith\_17 Start: 12095, Stop: 12319, Start Num: 26

Candidate Starts for Klodlith\_17:

(Start: 26 @12095 has 551 MA's), (33, 12134),

Gene: Koan\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Koan\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Koduck\_18 Start: 12395, Stop: 12547, Start Num: 26

Candidate Starts for Koduck\_18:

(Start: 20 @12374 has 1 MA's), (Start: 26 @12395 has 551 MA's), (38, 12458), (44, 12482),

Gene: Koko\_20 Start: 13278, Stop: 13475, Start Num: 26

Candidate Starts for Koko\_20:

(Start: 26 @13278 has 551 MA's), (45, 13368),

Gene: Koreni\_15 Start: 12124, Stop: 12330, Start Num: 26

Candidate Starts for Koreni\_15:

(Start: 26 @12124 has 551 MA's),

Gene: Kratak\_16 Start: 12473, Stop: 12679, Start Num: 26

Candidate Starts for Kratak\_16:

(Start: 26 @12473 has 551 MA's),

Gene: Kremtemulon\_16 Start: 12526, Stop: 12732, Start Num: 26

Candidate Starts for Kremtemulon\_16:

(Start: 26 @12526 has 551 MA's),

Gene: Krishelle\_13 Start: 8690, Stop: 8872, Start Num: 26

Candidate Starts for Krishelle\_13:

(Start: 14 @8642 has 1 MA's), (Start: 26 @8690 has 551 MA's),

Gene: Kristoff\_17 Start: 12438, Stop: 12623, Start Num: 26

Candidate Starts for Kristoff\_17:

(Start: 26 @12438 has 551 MA's),

Gene: Kyee\_16 Start: 12479, Stop: 12685, Start Num: 26

Candidate Starts for Kyee\_16:

(Start: 26 @12479 has 551 MA's),

Gene: L5\_18 Start: 12382, Stop: 12555, Start Num: 20

Candidate Starts for L5\_18:

(Start: 20 @12382 has 1 MA's), (Start: 26 @12403 has 551 MA's), (38, 12466), (44, 12490),

Gene: LBerry\_18 Start: 12602, Stop: 12787, Start Num: 26

Candidate Starts for LBerry\_18:

(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: LHTSCC\_16 Start: 12456, Stop: 12668, Start Num: 26

Candidate Starts for LHTSCC\_16:

(Start: 26 @12456 has 551 MA's),

Gene: LadyBird\_17 Start: 13155, Stop: 13337, Start Num: 26

Candidate Starts for LadyBird\_17:

(Start: 26 @13155 has 551 MA's),

Gene: Lambert1\_17 Start: 12696, Stop: 12875, Start Num: 26

Candidate Starts for Lambert1\_17:

(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Landor\_18 Start: 14910, Stop: 15110, Start Num: 21

Candidate Starts for Landor\_18:

(Start: 21 @14910 has 2 MA's), (Start: 26 @14928 has 551 MA's),

Gene: LappelDuVide\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for LappelDuVide\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: Larenn\_18 Start: 13470, Stop: 13649, Start Num: 26  
Candidate Starts for Larenn\_18:  
(Start: 26 @13470 has 551 MA's),

Gene: LarryKay\_18 Start: 12688, Stop: 12873, Start Num: 26  
Candidate Starts for LarryKay\_18:  
(Start: 26 @12688 has 551 MA's), (38, 12751),

Gene: LastResort\_19 Start: 12316, Stop: 12486, Start Num: 26  
Candidate Starts for LastResort\_19:  
(Start: 26 @12316 has 551 MA's),

Gene: Lemur\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Lemur\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: LeoAvram\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for LeoAvram\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: Leogania\_19 Start: 15329, Stop: 15514, Start Num: 26  
Candidate Starts for Leogania\_19:  
(Start: 26 @15329 has 551 MA's),

Gene: Leviathan\_19 Start: 13643, Stop: 13825, Start Num: 26  
Candidate Starts for Leviathan\_19:  
(Start: 13 @13595 has 1 MA's), (Start: 26 @13643 has 551 MA's),

Gene: LilTurb\_19 Start: 13670, Stop: 13852, Start Num: 26  
Candidate Starts for LilTurb\_19:  
(Start: 13 @13622 has 1 MA's), (Start: 26 @13670 has 551 MA's),

Gene: Lilbunny\_20 Start: 13260, Stop: 13457, Start Num: 26  
Candidate Starts for Lilbunny\_20:  
(Start: 26 @13260 has 551 MA's),

Gene: Lilith\_18 Start: 12595, Stop: 12780, Start Num: 26  
Candidate Starts for Lilith\_18:  
(Start: 26 @12595 has 551 MA's), (38, 12658),

Gene: Lilleskat\_16 Start: 13913, Stop: 14137, Start Num: 26  
Candidate Starts for Lilleskat\_16:  
(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: Lillie\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Lillie\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: LionsBait\_18 Start: 14940, Stop: 15128, Start Num: 26  
Candidate Starts for LionsBait\_18:  
(Start: 13 @14892 has 1 MA's), (Start: 26 @14940 has 551 MA's),

Gene: LittleB\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for LittleB\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: LittleGuy\_16 Start: 12421, Stop: 12627, Start Num: 26  
Candidate Starts for LittleGuy\_16:  
(Start: 26 @12421 has 551 MA's),

Gene: LochMonster\_16 Start: 12453, Stop: 12659, Start Num: 26  
Candidate Starts for LochMonster\_16:  
(Start: 26 @12453 has 551 MA's),

Gene: Lokk\_20 Start: 14867, Stop: 15043, Start Num: 26  
Candidate Starts for Lokk\_20:  
(Start: 26 @14867 has 551 MA's),

Gene: LoneWolf\_18 Start: 13722, Stop: 13946, Start Num: 26  
Candidate Starts for LoneWolf\_18:  
(Start: 26 @13722 has 551 MA's), (38, 13785), (45, 13812), (48, 13824), (51, 13872), (56, 13902),

Gene: Looper\_20 Start: 12316, Stop: 12486, Start Num: 26  
Candidate Starts for Looper\_20:  
(Start: 26 @12316 has 551 MA's),

Gene: Lorenzo\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Lorenzo\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Loser\_20 Start: 14963, Stop: 15145, Start Num: 26  
Candidate Starts for Loser\_20:  
(Start: 26 @14963 has 551 MA's),

Gene: Louie6\_18 Start: 12689, Stop: 12874, Start Num: 26  
Candidate Starts for Louie6\_18:  
(Start: 26 @12689 has 551 MA's), (38, 12752),

Gene: Lowa\_18 Start: 12594, Stop: 12779, Start Num: 26  
Candidate Starts for Lowa\_18:  
(Start: 26 @12594 has 551 MA's), (38, 12657),

Gene: Luchador\_18 Start: 13500, Stop: 13706, Start Num: 26  
Candidate Starts for Luchador\_18:  
(1, 13191), (Start: 26 @13500 has 551 MA's), (33, 13539),

Gene: Lucivia\_17 Start: 13806, Stop: 13973, Start Num: 26  
Candidate Starts for Lucivia\_17:  
(22, 13788), (Start: 26 @13806 has 551 MA's), (32, 13842), (46, 13890),

Gene: Lucky10\_7 Start: 5390, Stop: 5542, Start Num: 36

Candidate Starts for Lucky10\_7:  
(35, 5387), (Start: 36 @5390 has 3 MA's), (43, 5417),

Gene: Lucyedi\_18 Start: 13368, Stop: 13550, Start Num: 26  
Candidate Starts for Lucyedi\_18:  
(Start: 26 @13368 has 551 MA's),

Gene: LugYA\_20 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for LugYA\_20:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Lunsford\_17 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Lunsford\_17:  
(Start: 26 @12475 has 551 MA's),

Gene: MA5\_16 Start: 11752, Stop: 11931, Start Num: 26  
Candidate Starts for MA5\_16:  
(Start: 23 @11737 has 2 MA's), (Start: 26 @11752 has 551 MA's), (32, 11788), (33, 11791),

Gene: MK4\_16 Start: 12045, Stop: 12221, Start Num: 26  
Candidate Starts for MK4\_16:  
(Start: 26 @12045 has 551 MA's), (33, 12084), (34, 12096),

Gene: MaCh\_17 Start: 13754, Stop: 13921, Start Num: 26  
Candidate Starts for MaCh\_17:  
(22, 13736), (Start: 26 @13754 has 551 MA's), (32, 13790), (46, 13838),

Gene: Mabel\_17 Start: 13821, Stop: 13988, Start Num: 26  
Candidate Starts for Mabel\_17:  
(22, 13803), (Start: 26 @13821 has 551 MA's), (32, 13857), (46, 13905),

Gene: MadMarie\_18 Start: 12604, Stop: 12789, Start Num: 26  
Candidate Starts for MadMarie\_18:  
(Start: 26 @12604 has 551 MA's), (38, 12667),

Gene: Mainiac\_18 Start: 12595, Stop: 12780, Start Num: 26  
Candidate Starts for Mainiac\_18:  
(Start: 26 @12595 has 551 MA's), (38, 12658),

Gene: MajorMajor\_16 Start: 12104, Stop: 12289, Start Num: 26  
Candidate Starts for MajorMajor\_16:  
(Start: 26 @12104 has 551 MA's), (40, 12182),

Gene: Malec\_18 Start: 13475, Stop: 13654, Start Num: 26  
Candidate Starts for Malec\_18:  
(Start: 26 @13475 has 551 MA's),

Gene: Malinsilva\_20 Start: 12594, Stop: 12779, Start Num: 26  
Candidate Starts for Malinsilva\_20:  
(Start: 26 @12594 has 551 MA's), (38, 12657), (52, 12738),

Gene: Maminaiaina\_18 Start: 13646, Stop: 13870, Start Num: 26  
Candidate Starts for Maminaiaina\_18:

(Start: 26 @13646 has 551 MA's), (45, 13736), (48, 13748), (51, 13796), (56, 13826),

Gene: Manu\_19 Start: 12679, Stop: 12861, Start Num: 26

Candidate Starts for Manu\_19:

(Start: 26 @12679 has 551 MA's),

Gene: MarQuardt\_18 Start: 12603, Stop: 12788, Start Num: 26

Candidate Starts for MarQuardt\_18:

(Start: 26 @12603 has 551 MA's), (38, 12666),

Gene: Marchesa\_16 Start: 12206, Stop: 12385, Start Num: 26

Candidate Starts for Marchesa\_16:

(Start: 26 @12206 has 551 MA's), (32, 12242), (33, 12245), (54, 12350),

Gene: Margo\_17 Start: 12721, Stop: 12900, Start Num: 26

Candidate Starts for Margo\_17:

(Start: 23 @12706 has 2 MA's), (Start: 26 @12721 has 551 MA's),

Gene: Marie\_18 Start: 12600, Stop: 12785, Start Num: 26

Candidate Starts for Marie\_18:

(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Marius\_19 Start: 12679, Stop: 12861, Start Num: 26

Candidate Starts for Marius\_19:

(Start: 26 @12679 has 551 MA's),

Gene: Maverick\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Maverick\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Maxo\_16 Start: 12476, Stop: 12682, Start Num: 26

Candidate Starts for Maxo\_16:

(Start: 26 @12476 has 551 MA's),

Gene: Mayonnaise\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Mayonnaise\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Mazhar510\_16 Start: 12479, Stop: 12685, Start Num: 26

Candidate Starts for Mazhar510\_16:

(Start: 26 @12479 has 551 MA's),

Gene: McFly\_20 Start: 13284, Stop: 13481, Start Num: 26

Candidate Starts for McFly\_20:

(Start: 26 @13284 has 551 MA's),

Gene: Medusa\_16 Start: 12479, Stop: 12685, Start Num: 26

Candidate Starts for Medusa\_16:

(Start: 26 @12479 has 551 MA's),

Gene: MeeZee\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for MeeZee\_16:

(Start: 26 @12478 has 551 MA's),

Gene: MegTheThird\_16 Start: 12071, Stop: 12307, Start Num: 26  
Candidate Starts for MegTheThird\_16:  
(Start: 26 @12071 has 551 MA's), (37, 12131), (38, 12134),

Gene: Melvin\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Melvin\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Methuselah\_18 Start: 12685, Stop: 12870, Start Num: 26  
Candidate Starts for Methuselah\_18:  
(Start: 26 @12685 has 551 MA's), (38, 12748),

Gene: Microwolf\_18 Start: 12603, Stop: 12788, Start Num: 26  
Candidate Starts for Microwolf\_18:  
(Start: 26 @12603 has 551 MA's), (38, 12666),

Gene: MiculUcigas\_17 Start: 13239, Stop: 13418, Start Num: 26  
Candidate Starts for MiculUcigas\_17:  
(Start: 26 @13239 has 551 MA's),

Gene: Miko\_20 Start: 14836, Stop: 15012, Start Num: 26  
Candidate Starts for Miko\_20:  
(Start: 26 @14836 has 551 MA's),

Gene: Millski\_16 Start: 12481, Stop: 12687, Start Num: 26  
Candidate Starts for Millski\_16:  
(Start: 26 @12481 has 551 MA's),

Gene: MinecraftSteve\_20 Start: 12438, Stop: 12608, Start Num: 26  
Candidate Starts for MinecraftSteve\_20:  
(Start: 26 @12438 has 551 MA's),

Gene: Minispark\_15 Start: 11982, Stop: 12200, Start Num: 26  
Candidate Starts for Minispark\_15:  
(Start: 5 @11913 has 1 MA's), (12, 11937), (Start: 17 @11958 has 5 MA's), (Start: 26 @11982 has 551 MA's), (33, 12021),

Gene: Miramae\_16 Start: 12438, Stop: 12632, Start Num: 26  
Candidate Starts for Miramae\_16:  
(Start: 26 @12438 has 551 MA's),

Gene: Misomonster\_20 Start: 12685, Stop: 12870, Start Num: 26  
Candidate Starts for Misomonster\_20:  
(Start: 26 @12685 has 551 MA's), (38, 12748),

Gene: MissWhite\_17 Start: 12278, Stop: 12454, Start Num: 26  
Candidate Starts for MissWhite\_17:  
(Start: 26 @12278 has 551 MA's), (38, 12341), (47, 12371),

Gene: MoneyMay\_18 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for MoneyMay\_18:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Montavir\_17 Start: 12602, Stop: 12787, Start Num: 26  
Candidate Starts for Montavir\_17:  
(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: Morkie\_7 Start: 5358, Stop: 5504, Start Num: 36  
Candidate Starts for Morkie\_7:  
(Start: 36 @5358 has 3 MA's), (41, 5379),

Gene: Morpher26\_16 Start: 12487, Stop: 12684, Start Num: 26  
Candidate Starts for Morpher26\_16:  
(Start: 26 @12487 has 551 MA's),

Gene: Morrow\_16 Start: 12481, Stop: 12687, Start Num: 26  
Candidate Starts for Morrow\_16:  
(Start: 26 @12481 has 551 MA's),

Gene: MuchMore\_20 Start: 12594, Stop: 12779, Start Num: 26  
Candidate Starts for MuchMore\_20:  
(Start: 26 @12594 has 551 MA's), (38, 12657),

Gene: Mulciber\_17 Start: 13757, Stop: 13924, Start Num: 26  
Candidate Starts for Mulciber\_17:  
(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: Munch\_17 Start: 13757, Stop: 13924, Start Num: 26  
Candidate Starts for Munch\_17:  
(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: Mundrea\_16 Start: 12441, Stop: 12650, Start Num: 26  
Candidate Starts for Mundrea\_16:  
(Start: 26 @12441 has 551 MA's),

Gene: MyraDee\_14 Start: 10624, Stop: 10881, Start Num: 26  
Candidate Starts for MyraDee\_14:  
(Start: 26 @10624 has 551 MA's), (27, 10630), (29, 10651),

Gene: Myxus\_18 Start: 13889, Stop: 14137, Start Num: 17  
Candidate Starts for Myxus\_18:  
(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: NaSiaTalie\_17 Start: 13236, Stop: 13415, Start Num: 26  
Candidate Starts for NaSiaTalie\_17:  
(Start: 26 @13236 has 551 MA's),

Gene: Naiad\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Naiad\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Naji\_20 Start: 13113, Stop: 13268, Start Num: 26  
Candidate Starts for Naji\_20:  
(Start: 26 @13113 has 551 MA's),

Gene: Nancinator\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Nancinator\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Natosaleda\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Natosaleda\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800),

Gene: Nebs\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Nebs\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: Nebulosus\_19 Start: 12316, Stop: 12486, Start Num: 26  
Candidate Starts for Nebulosus\_19:  
(Start: 26 @12316 has 551 MA's),

Gene: Nedarya\_18 Start: 12899, Stop: 13075, Start Num: 26  
Candidate Starts for Nedarya\_18:  
(Start: 26 @12899 has 551 MA's),

Gene: Neeharika16\_20 Start: 13275, Stop: 13472, Start Num: 26  
Candidate Starts for Neeharika16\_20:  
(8, 13209), (11, 13221), (19, 13254), (Start: 26 @13275 has 551 MA's),

Gene: Nemo27\_16 Start: 12477, Stop: 12683, Start Num: 26  
Candidate Starts for Nemo27\_16:  
(Start: 26 @12477 has 551 MA's),

Gene: Newrala\_20 Start: 13275, Stop: 13472, Start Num: 26  
Candidate Starts for Newrala\_20:  
(8, 13209), (11, 13221), (19, 13254), (Start: 26 @13275 has 551 MA's),

Gene: NicoleTera\_21 Start: 14947, Stop: 15129, Start Num: 26  
Candidate Starts for NicoleTera\_21:  
(Start: 26 @14947 has 551 MA's),

Gene: Noella\_17 Start: 12696, Stop: 12875, Start Num: 26  
Candidate Starts for Noella\_17:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Noelle\_16 Start: 12541, Stop: 12738, Start Num: 26  
Candidate Starts for Noelle\_16:  
(Start: 26 @12541 has 551 MA's),

Gene: Norbert\_16 Start: 12696, Stop: 12875, Start Num: 26  
Candidate Starts for Norbert\_16:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: NorthStar\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for NorthStar\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: NotAPhaseMom\_16 Start: 12482, Stop: 12688, Start Num: 26  
Candidate Starts for NotAPhaseMom\_16:  
(Start: 26 @12482 has 551 MA's),

Gene: NothingSpecial\_19 Start: 15200, Stop: 15382, Start Num: 26  
Candidate Starts for NothingSpecial\_19:  
(Start: 26 @15200 has 551 MA's),

Gene: Nyxis\_16 Start: 12421, Stop: 12627, Start Num: 26  
Candidate Starts for Nyxis\_16:  
(Start: 26 @12421 has 551 MA's),

Gene: OKCentral2016\_16 Start: 11957, Stop: 12142, Start Num: 26  
Candidate Starts for OKCentral2016\_16:  
(Start: 26 @11957 has 551 MA's),

Gene: OKaNui\_17 Start: 12531, Stop: 12737, Start Num: 26  
Candidate Starts for OKaNui\_17:  
(Start: 26 @12531 has 551 MA's),

Gene: Obama12\_16 Start: 12458, Stop: 12670, Start Num: 26  
Candidate Starts for Obama12\_16:  
(Start: 26 @12458 has 551 MA's),

Gene: Odin\_16 Start: 12002, Stop: 12157, Start Num: 26  
Candidate Starts for Odin\_16:  
(Start: 26 @12002 has 551 MA's),

Gene: Ohfah\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Ohfah\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: OlanP\_18 Start: 12859, Stop: 13041, Start Num: 26  
Candidate Starts for OlanP\_18:  
(Start: 26 @12859 has 551 MA's),

Gene: Ollie\_18 Start: 12473, Stop: 12658, Start Num: 26  
Candidate Starts for Ollie\_18:  
(Start: 26 @12473 has 551 MA's), (38, 12536),

Gene: Onglai\_17 Start: 12247, Stop: 12471, Start Num: 26  
Candidate Starts for Onglai\_17:  
(6, 12181), (Start: 26 @12247 has 551 MA's), (33, 12286), (45, 12337), (48, 12349), (51, 12397), (56, 12427),

Gene: Oofda\_19 Start: 12287, Stop: 12457, Start Num: 26  
Candidate Starts for Oofda\_19:  
(Start: 26 @12287 has 551 MA's),

Gene: Orange\_17 Start: 13757, Stop: 13924, Start Num: 26  
Candidate Starts for Orange\_17:  
(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: P28Green\_18 Start: 12601, Stop: 12786, Start Num: 26

Candidate Starts for P28Green\_18:

(Start: 26 @12601 has 551 MA's), (38, 12664),

Gene: PGHhamlin\_20 Start: 12594, Stop: 12779, Start Num: 26

Candidate Starts for PGHhamlin\_20:

(Start: 26 @12594 has 551 MA's), (38, 12657),

Gene: PP\_26 Start: 18359, Stop: 18544, Start Num: 26

Candidate Starts for PP\_26:

(2, 18167), (3, 18194), (Start: 26 @18359 has 551 MA's), (33, 18398),

Gene: PackMan\_18 Start: 13889, Stop: 14137, Start Num: 17

Candidate Starts for PackMan\_18:

(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: PainterBoy\_18 Start: 13368, Stop: 13550, Start Num: 26

Candidate Starts for PainterBoy\_18:

(Start: 26 @13368 has 551 MA's),

Gene: Palestino\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Palestino\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Panamaxus\_17 Start: 12681, Stop: 12875, Start Num: 23

Candidate Starts for Panamaxus\_17:

(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Partridge\_13 Start: 8734, Stop: 8940, Start Num: 26

Candidate Starts for Partridge\_13:

(Start: 14 @8686 has 1 MA's), (Start: 26 @8734 has 551 MA's), (45, 8827),

Gene: Pawn\_18 Start: 12679, Stop: 12861, Start Num: 26

Candidate Starts for Pawn\_18:

(Start: 26 @12679 has 551 MA's),

Gene: PeaceMeal1\_15 Start: 10362, Stop: 10541, Start Num: 26

Candidate Starts for PeaceMeal1\_15:

(Start: 26 @10362 has 551 MA's),

Gene: Peaches\_16 Start: 12477, Stop: 12683, Start Num: 26

Candidate Starts for Peaches\_16:

(Start: 26 @12477 has 551 MA's),

Gene: Pembroke\_18 Start: 12603, Stop: 12788, Start Num: 26

Candidate Starts for Pembroke\_18:

(Start: 26 @12603 has 551 MA's), (38, 12666),

Gene: Penny1\_18 Start: 12602, Stop: 12787, Start Num: 26

Candidate Starts for Penny1\_18:

(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: Perplexer\_16 Start: 12481, Stop: 12678, Start Num: 26  
Candidate Starts for Perplexer\_16:  
(Start: 26 @12481 has 551 MA's),

Gene: PeterPeter\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for PeterPeter\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Petersenfast\_16 Start: 13760, Stop: 13927, Start Num: 26  
Candidate Starts for Petersenfast\_16:  
(22, 13742), (Start: 26 @13760 has 551 MA's), (32, 13796), (46, 13844),

Gene: PetiteSangsue\_16 Start: 12487, Stop: 12684, Start Num: 26  
Candidate Starts for PetiteSangsue\_16:  
(Start: 26 @12487 has 551 MA's),

Gene: Ph8s\_18 Start: 11961, Stop: 12116, Start Num: 26  
Candidate Starts for Ph8s\_18:  
(Start: 26 @11961 has 551 MA's),

Gene: Phacado\_16 Start: 12477, Stop: 12683, Start Num: 26  
Candidate Starts for Phacado\_16:  
(Start: 26 @12477 has 551 MA's),

Gene: Phaded\_20 Start: 15257, Stop: 15457, Start Num: 21  
Candidate Starts for Phaded\_20:  
(Start: 21 @15257 has 2 MA's), (Start: 26 @15275 has 551 MA's),

Gene: Phaeder\_18 Start: 13913, Stop: 14137, Start Num: 26  
Candidate Starts for Phaeder\_18:  
(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: PhailMary\_12 Start: 8693, Stop: 8923, Start Num: 14  
Candidate Starts for PhailMary\_12:  
(Start: 14 @8693 has 1 MA's), (Start: 26 @8741 has 551 MA's),

Gene: Phantastic\_16 Start: 12115, Stop: 12300, Start Num: 26  
Candidate Starts for Phantastic\_16:  
(Start: 26 @12115 has 551 MA's), (31, 12148), (50, 12229),

Gene: Pharaoh\_17 Start: 13693, Stop: 13884, Start Num: 26  
Candidate Starts for Pharaoh\_17:  
(4, 13597), (18, 13666), (Start: 26 @13693 has 551 MA's), (30, 13723),

Gene: Phelipe\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Phelipe\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Phighter1804\_16 Start: 12456, Stop: 12662, Start Num: 26  
Candidate Starts for Phighter1804\_16:  
(Start: 26 @12456 has 551 MA's),

Gene: PhishRPhriends\_17 Start: 11864, Stop: 12046, Start Num: 26  
Candidate Starts for PhishRPhriends\_17:  
(Start: 26 @11864 has 551 MA's),

Gene: Phoebe\_18 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for Phoebe\_18:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Phonnegut\_18 Start: 13946, Stop: 14170, Start Num: 26  
Candidate Starts for Phonnegut\_18:  
(Start: 17 @13922 has 5 MA's), (Start: 26 @13946 has 551 MA's), (33, 13985), (45, 14036), (48, 14048), (51, 14096), (56, 14126),

Gene: Phontbonne\_16 Start: 12422, Stop: 12628, Start Num: 26  
Candidate Starts for Phontbonne\_16:  
(Start: 26 @12422 has 551 MA's),

Gene: PhorbesPhlower\_7 Start: 5358, Stop: 5504, Start Num: 36  
Candidate Starts for PhorbesPhlower\_7:  
(Start: 36 @5358 has 3 MA's), (41, 5379),

Gene: Phoxy\_18 Start: 12686, Stop: 12871, Start Num: 26  
Candidate Starts for Phoxy\_18:  
(Start: 26 @12686 has 551 MA's), (38, 12749),

Gene: Phrankenstein\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Phrankenstein\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Phranny\_19 Start: 12671, Stop: 12853, Start Num: 26  
Candidate Starts for Phranny\_19:  
(Start: 26 @12671 has 551 MA's),

Gene: Pioneer\_18 Start: 13946, Stop: 14170, Start Num: 26  
Candidate Starts for Pioneer\_18:  
(Start: 17 @13922 has 5 MA's), (Start: 26 @13946 has 551 MA's), (33, 13985), (45, 14036), (48, 14048), (51, 14096), (56, 14126),

Gene: Pipcraft\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Pipcraft\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Piro94\_18 Start: 13697, Stop: 13876, Start Num: 26  
Candidate Starts for Piro94\_18:  
(Start: 26 @13697 has 551 MA's),

Gene: Pistachio\_17 Start: 11702, Stop: 11881, Start Num: 26  
Candidate Starts for Pistachio\_17:  
(Start: 26 @11702 has 551 MA's), (32, 11738), (33, 11741), (54, 11846),

Gene: Pmask\_20 Start: 13276, Stop: 13473, Start Num: 26  
Candidate Starts for Pmask\_20:  
(19, 13255), (Start: 26 @13276 has 551 MA's),

Gene: Pocahontas\_17 Start: 12693, Stop: 12872, Start Num: 26  
Candidate Starts for Pocahontas\_17:  
(Start: 23 @12678 has 2 MA's), (Start: 26 @12693 has 551 MA's),

Gene: Polymorphads\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Polymorphads\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: Polyphemus\_20 Start: 13277, Stop: 13474, Start Num: 26  
Candidate Starts for Polyphemus\_20:  
(8, 13211), (11, 13223), (19, 13256), (Start: 26 @13277 has 551 MA's),

Gene: Pomar16\_20 Start: 13154, Stop: 13309, Start Num: 26  
Candidate Starts for Pomar16\_20:  
(Start: 26 @13154 has 551 MA's),

Gene: Poompha\_15 Start: 10360, Stop: 10539, Start Num: 26  
Candidate Starts for Poompha\_15:  
(Start: 26 @10360 has 551 MA's),

Gene: Popcicle\_17 Start: 12693, Stop: 12872, Start Num: 26  
Candidate Starts for Popcicle\_17:  
(Start: 23 @12678 has 2 MA's), (Start: 26 @12693 has 551 MA's),

Gene: PotatoSplit\_19 Start: 12602, Stop: 12787, Start Num: 26  
Candidate Starts for PotatoSplit\_19:  
(Start: 26 @12602 has 551 MA's), (38, 12665),

Gene: Power\_17 Start: 13133, Stop: 13315, Start Num: 26  
Candidate Starts for Power\_17:  
(Start: 13 @13085 has 1 MA's), (Start: 26 @13133 has 551 MA's),

Gene: Priamo\_20 Start: 13303, Stop: 13500, Start Num: 26  
Candidate Starts for Priamo\_20:  
(8, 13237), (11, 13249), (19, 13282), (Start: 26 @13303 has 551 MA's),

Gene: Priya\_18 Start: 13944, Stop: 14168, Start Num: 26  
Candidate Starts for Priya\_18:  
(Start: 26 @13944 has 551 MA's), (33, 13983), (45, 14034), (48, 14046), (51, 14094), (56, 14124),

Gene: Prudy\_19 Start: 14994, Stop: 15179, Start Num: 26  
Candidate Starts for Prudy\_19:  
(Start: 26 @14994 has 551 MA's),

Gene: Pukovnik\_19 Start: 14843, Stop: 15010, Start Num: 26  
Candidate Starts for Pukovnik\_19:  
(Start: 26 @14843 has 551 MA's),

Gene: Pumbaa\_16 Start: 12453, Stop: 12659, Start Num: 26  
Candidate Starts for Pumbaa\_16:  
(Start: 26 @12453 has 551 MA's),

Gene: Puppy\_17 Start: 11774, Stop: 11953, Start Num: 26  
Candidate Starts for Puppy\_17:  
(Start: 26 @11774 has 551 MA's), (32, 11810), (33, 11813), (54, 11918),

Gene: PurpleHaze\_18 Start: 12678, Stop: 12860, Start Num: 26  
Candidate Starts for PurpleHaze\_18:  
(Start: 26 @12678 has 551 MA's),

Gene: Qobbit\_18 Start: 13943, Stop: 14167, Start Num: 26  
Candidate Starts for Qobbit\_18:  
(Start: 17 @13919 has 5 MA's), (Start: 26 @13943 has 551 MA's), (33, 13982), (45, 14033), (48, 14045), (51, 14093), (56, 14123),

Gene: QueenB2\_17 Start: 13210, Stop: 13392, Start Num: 26  
Candidate Starts for QueenB2\_17:  
(Start: 13 @13162 has 1 MA's), (Start: 26 @13210 has 551 MA's), (40, 13288),

Gene: QueenBeesly\_17 Start: 13133, Stop: 13315, Start Num: 26  
Candidate Starts for QueenBeesly\_17:  
(Start: 13 @13085 has 1 MA's), (Start: 26 @13133 has 551 MA's),

Gene: QuinnKiro\_16 Start: 12696, Stop: 12875, Start Num: 26  
Candidate Starts for QuinnKiro\_16:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Quokka\_15 Start: 12104, Stop: 12289, Start Num: 26  
Candidate Starts for Quokka\_15:  
(Start: 26 @12104 has 551 MA's), (40, 12182),

Gene: RER2\_6 Start: 5579, Stop: 5785, Start Num: 26  
Candidate Starts for RER2\_6:  
(Start: 26 @5579 has 551 MA's), (45, 5672), (57, 5762),

Gene: RGL3\_6 Start: 5567, Stop: 5749, Start Num: 26  
Candidate Starts for RGL3\_6:  
(Start: 26 @5567 has 551 MA's), (53, 5720),

Gene: Rachaly\_20 Start: 14864, Stop: 15040, Start Num: 26  
Candidate Starts for Rachaly\_20:  
(Start: 26 @14864 has 551 MA's),

Gene: Rahalelujah\_16 Start: 11982, Stop: 12200, Start Num: 26  
Candidate Starts for Rahalelujah\_16:  
(Start: 5 @11913 has 1 MA's), (12, 11937), (Start: 17 @11958 has 5 MA's), (Start: 26 @11982 has 551 MA's), (33, 12021),

Gene: Rasputin\_13 Start: 8675, Stop: 8881, Start Num: 26  
Candidate Starts for Rasputin\_13:  
(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's),

Gene: Ravana\_19 Start: 12277, Stop: 12447, Start Num: 26  
Candidate Starts for Ravana\_19:  
(Start: 26 @12277 has 551 MA's),

Gene: ReMo\_19 Start: 12316, Stop: 12486, Start Num: 26  
Candidate Starts for ReMo\_19:  
(Start: 26 @12316 has 551 MA's),

Gene: Reba\_19 Start: 12344, Stop: 12526, Start Num: 26  
Candidate Starts for Reba\_19:  
(Start: 26 @12344 has 551 MA's),

Gene: Rebeuca\_17 Start: 12439, Stop: 12624, Start Num: 26  
Candidate Starts for Rebeuca\_17:  
(Start: 26 @12439 has 551 MA's),

Gene: RedRock\_20 Start: 15120, Stop: 15302, Start Num: 26  
Candidate Starts for RedRock\_20:  
(Start: 26 @15120 has 551 MA's),

Gene: Refuge\_20 Start: 15497, Stop: 15685, Start Num: 26  
Candidate Starts for Refuge\_20:  
(4, 15428), (18, 15473), (Start: 26 @15497 has 551 MA's), (30, 15527),

Gene: Relief\_16 Start: 12476, Stop: 12682, Start Num: 26  
Candidate Starts for Relief\_16:  
(Start: 26 @12476 has 551 MA's),

Gene: Remus\_19 Start: 12277, Stop: 12447, Start Num: 26  
Candidate Starts for Remus\_19:  
(Start: 26 @12277 has 551 MA's),

Gene: ResDef\_17 Start: 12696, Stop: 12875, Start Num: 26  
Candidate Starts for ResDef\_17:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Retro23\_17 Start: 13284, Stop: 13466, Start Num: 26  
Candidate Starts for Retro23\_17:  
(Start: 13 @13236 has 1 MA's), (Start: 26 @13284 has 551 MA's),

Gene: RexFury\_13 Start: 8738, Stop: 8944, Start Num: 26  
Candidate Starts for RexFury\_13:  
(Start: 26 @8738 has 551 MA's), (45, 8831), (57, 8921),

Gene: Rhodalysa\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Rhodalysa\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: RhynO\_17 Start: 12415, Stop: 12600, Start Num: 26  
Candidate Starts for RhynO\_17:  
(Start: 26 @12415 has 551 MA's),

Gene: Rifter\_20 Start: 13251, Stop: 13448, Start Num: 26  
Candidate Starts for Rifter\_20:  
(Start: 26 @13251 has 551 MA's), (45, 13341),

Gene: RockieBear\_15 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for RockieBear\_15:  
(Start: 26 @12478 has 551 MA's),

Gene: Rockstar\_16 Start: 12051, Stop: 12227, Start Num: 26  
Candidate Starts for Rockstar\_16:  
(Start: 26 @12051 has 551 MA's), (33, 12090),

Gene: Roimos\_16 Start: 12124, Stop: 12303, Start Num: 26  
Candidate Starts for Roimos\_16:  
(Start: 26 @12124 has 551 MA's), (32, 12160), (33, 12163), (54, 12268),

Gene: Roksolana\_20 Start: 13279, Stop: 13476, Start Num: 26  
Candidate Starts for Roksolana\_20:  
(Start: 26 @13279 has 551 MA's),

Gene: Romney\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Romney\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Roosevelt\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Roosevelt\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Rosa24\_15 Start: 12451, Stop: 12657, Start Num: 26  
Candidate Starts for Rosa24\_15:  
(Start: 26 @12451 has 551 MA's),

Gene: Rosalind\_19 Start: 12438, Stop: 12608, Start Num: 26  
Candidate Starts for Rosalind\_19:  
(Start: 26 @12438 has 551 MA's),

Gene: Rowdy\_19 Start: 12326, Stop: 12511, Start Num: 26  
Candidate Starts for Rowdy\_19:  
(Start: 26 @12326 has 551 MA's),

Gene: Ruin\_16 Start: 12474, Stop: 12680, Start Num: 26  
Candidate Starts for Ruin\_16:  
(Start: 26 @12474 has 551 MA's),

Gene: Rummer\_18 Start: 12686, Stop: 12871, Start Num: 26  
Candidate Starts for Rummer\_18:  
(Start: 26 @12686 has 551 MA's), (38, 12749),

Gene: RyeScarlet\_19 Start: 13917, Stop: 14141, Start Num: 26  
Candidate Starts for RyeScarlet\_19:  
(6, 13851), (Start: 26 @13917 has 551 MA's), (33, 13956), (45, 14007), (48, 14019), (51, 14067), (56, 14097),

Gene: Sabertooth\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Sabertooth\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: Sabia\_18 Start: 12595, Stop: 12780, Start Num: 26

Candidate Starts for Sabia\_18:

(Start: 26 @12595 has 551 MA's), (38, 12658),

Gene: Sabinator\_18 Start: 12600, Stop: 12785, Start Num: 26

Candidate Starts for Sabinator\_18:

(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Sachima\_16 Start: 13913, Stop: 14137, Start Num: 26

Candidate Starts for Sachima\_16:

(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: Salz\_17 Start: 13754, Stop: 13921, Start Num: 26

Candidate Starts for Salz\_17:

(22, 13736), (Start: 26 @13754 has 551 MA's), (32, 13790), (46, 13838),

Gene: Saskia\_16 Start: 13757, Stop: 13924, Start Num: 26

Candidate Starts for Saskia\_16:

(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: SaturnRing\_16 Start: 12155, Stop: 12334, Start Num: 26

Candidate Starts for SaturnRing\_16:

(Start: 26 @12155 has 551 MA's), (32, 12191), (33, 12194), (54, 12299),

Gene: Scamp\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Scamp\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Scherzo\_18 Start: 13946, Stop: 14170, Start Num: 26

Candidate Starts for Scherzo\_18:

(Start: 17 @13922 has 5 MA's), (Start: 26 @13946 has 551 MA's), (33, 13985), (45, 14036), (48, 14048), (51, 14096), (56, 14126),

Gene: Scout\_16 Start: 11455, Stop: 11634, Start Num: 26

Candidate Starts for Scout\_16:

(Start: 26 @11455 has 551 MA's), (32, 11491), (33, 11494), (54, 11599),

Gene: SemperFi\_19 Start: 13561, Stop: 13743, Start Num: 26

Candidate Starts for SemperFi\_19:

(Start: 13 @13513 has 1 MA's), (Start: 26 @13561 has 551 MA's),

Gene: SenorClean\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for SenorClean\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Serenity\_16 Start: 12104, Stop: 12289, Start Num: 26

Candidate Starts for Serenity\_16:

(Start: 26 @12104 has 551 MA's),

Gene: Severus\_15 Start: 10360, Stop: 10539, Start Num: 26

Candidate Starts for Severus\_15:

(Start: 26 @10360 has 551 MA's),

Gene: Shaka\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Shaka\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Sham4\_17 Start: 13760, Stop: 13927, Start Num: 26

Candidate Starts for Sham4\_17:

(22, 13742), (Start: 26 @13760 has 551 MA's), (32, 13796), (46, 13844),

Gene: Shapes\_19 Start: 12326, Stop: 12511, Start Num: 26

Candidate Starts for Shapes\_19:

(Start: 26 @12326 has 551 MA's),

Gene: ShayRa\_20 Start: 12438, Stop: 12608, Start Num: 26

Candidate Starts for ShayRa\_20:

(Start: 26 @12438 has 551 MA's),

Gene: SheaKeira\_17 Start: 12121, Stop: 12345, Start Num: 26

Candidate Starts for SheaKeira\_17:

(Start: 26 @12121 has 551 MA's), (33, 12160),

Gene: Sheen\_18 Start: 14229, Stop: 14390, Start Num: 26

Candidate Starts for Sheen\_18:

(Start: 26 @14229 has 551 MA's), (31, 14262), (33, 14268), (39, 14301),

Gene: SheldonCooper\_16 Start: 12457, Stop: 12669, Start Num: 26

Candidate Starts for SheldonCooper\_16:

(Start: 26 @12457 has 551 MA's),

Gene: Shuman\_13 Start: 8707, Stop: 8913, Start Num: 26

Candidate Starts for Shuman\_13:

(Start: 26 @8707 has 551 MA's), (45, 8800),

Gene: Shygu2\_16 Start: 12482, Stop: 12679, Start Num: 26

Candidate Starts for Shygu2\_16:

(Start: 26 @12482 has 551 MA's),

Gene: Skipitt\_16 Start: 12475, Stop: 12681, Start Num: 26

Candidate Starts for Skipitt\_16:

(Start: 26 @12475 has 551 MA's),

Gene: Sknot\_17 Start: 13239, Stop: 13418, Start Num: 26

Candidate Starts for Sknot\_17:

(Start: 26 @13239 has 551 MA's),

Gene: Smeagan\_19 Start: 13646, Stop: 13828, Start Num: 26

Candidate Starts for Smeagan\_19:

(Start: 13 @13598 has 1 MA's), (Start: 26 @13646 has 551 MA's),

Gene: SmellyB\_20 Start: 13284, Stop: 13481, Start Num: 26

Candidate Starts for SmellyB\_20:

(Start: 26 @13284 has 551 MA's),

Gene: SnapTap\_17 Start: 13133, Stop: 13315, Start Num: 26  
Candidate Starts for SnapTap\_17:  
(Start: 13 @13085 has 1 MA's), (Start: 26 @13133 has 551 MA's),

Gene: Snape\_17 Start: 13760, Stop: 13927, Start Num: 26  
Candidate Starts for Snape\_17:  
(22, 13742), (Start: 26 @13760 has 551 MA's), (32, 13796), (46, 13844),

Gene: Snickers\_18 Start: 12576, Stop: 12761, Start Num: 26  
Candidate Starts for Snickers\_18:  
(Start: 26 @12576 has 551 MA's), (38, 12639),

Gene: SoYo\_18 Start: 12513, Stop: 12698, Start Num: 26  
Candidate Starts for SoYo\_18:  
(Start: 26 @12513 has 551 MA's), (38, 12576),

Gene: SoilDragon\_18 Start: 12285, Stop: 12470, Start Num: 26  
Candidate Starts for SoilDragon\_18:  
(Start: 26 @12285 has 551 MA's), (38, 12348),

Gene: SororFago\_16 Start: 12265, Stop: 12498, Start Num: 25  
Candidate Starts for SororFago\_16:  
(6, 12196), (10, 12211), (22, 12250), (Start: 25 @12265 has 3 MA's), (33, 12307),

Gene: Soshari\_20 Start: 12685, Stop: 12870, Start Num: 26  
Candidate Starts for Soshari\_20:  
(Start: 26 @12685 has 551 MA's), (38, 12748),

Gene: Soups\_19 Start: 12438, Stop: 12608, Start Num: 26  
Candidate Starts for Soups\_19:  
(Start: 26 @12438 has 551 MA's),

Gene: Sparxx\_16 Start: 12475, Stop: 12681, Start Num: 26  
Candidate Starts for Sparxx\_16:  
(Start: 26 @12475 has 551 MA's),

Gene: Spike509\_18 Start: 12686, Stop: 12871, Start Num: 26  
Candidate Starts for Spike509\_18:  
(Start: 26 @12686 has 551 MA's), (38, 12749),

Gene: Spino\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Spino\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Spouty\_18 Start: 13943, Stop: 14167, Start Num: 26  
Candidate Starts for Spouty\_18:  
(Start: 26 @13943 has 551 MA's), (33, 13982), (45, 14033), (48, 14045), (51, 14093), (56, 14123),

Gene: StCroix\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for StCroix\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Stagni\_18 Start: 12604, Stop: 12789, Start Num: 26

Candidate Starts for Stagni\_18:  
(Start: 26 @12604 has 551 MA's), (38, 12667),

Gene: StarStuff\_20 Start: 13113, Stop: 13268, Start Num: 26  
Candidate Starts for StarStuff\_20:  
(Start: 26 @13113 has 551 MA's),

Gene: Stasia\_17 Start: 12932, Stop: 13120, Start Num: 26  
Candidate Starts for Stasia\_17:  
(Start: 26 @12932 has 551 MA's),

Gene: SteMason\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for SteMason\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Steamy\_18 Start: 13652, Stop: 13915, Start Num: 5  
Candidate Starts for Steamy\_18:  
(4, 13625), (Start: 5 @13652 has 1 MA's), (7, 13658), (9, 13664), (Start: 26 @13727 has 551 MA's),  
(30, 13757),

Gene: Stink\_16 Start: 12447, Stop: 12641, Start Num: 26  
Candidate Starts for Stink\_16:  
(Start: 26 @12447 has 551 MA's),

Gene: Strosahl\_19 Start: 12277, Stop: 12447, Start Num: 26  
Candidate Starts for Strosahl\_19:  
(Start: 26 @12277 has 551 MA's),

Gene: Sultana\_16 Start: 12479, Stop: 12685, Start Num: 26  
Candidate Starts for Sultana\_16:  
(Start: 26 @12479 has 551 MA's),

Gene: Sunhee\_16 Start: 12301, Stop: 12534, Start Num: 25  
Candidate Starts for Sunhee\_16:  
(Start: 25 @12301 has 3 MA's), (33, 12343),

Gene: SuperAwesome\_20 Start: 13275, Stop: 13472, Start Num: 26  
Candidate Starts for SuperAwesome\_20:  
(8, 13209), (11, 13221), (19, 13254), (Start: 26 @13275 has 551 MA's),

Gene: SuperCallie99\_20 Start: 13274, Stop: 13471, Start Num: 26  
Candidate Starts for SuperCallie99\_20:  
(Start: 26 @13274 has 551 MA's), (45, 13364),

Gene: Superchunk\_16 Start: 11860, Stop: 12015, Start Num: 26  
Candidate Starts for Superchunk\_16:  
(Start: 26 @11860 has 551 MA's),

Gene: Swann\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for Swann\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: SweetiePie\_17 Start: 13133, Stop: 13315, Start Num: 26

Candidate Starts for SweetiePie\_17:  
(Start: 13 @13085 has 1 MA's), (Start: 26 @13133 has 551 MA's),

Gene: SwirlSquare\_18 Start: 12039, Stop: 12194, Start Num: 26  
Candidate Starts for SwirlSquare\_18:  
(Start: 26 @12039 has 551 MA's),

Gene: Switzerland\_19 Start: 12431, Stop: 12601, Start Num: 26  
Candidate Starts for Switzerland\_19:  
(Start: 26 @12431 has 551 MA's),

Gene: TNguyen7\_16 Start: 12125, Stop: 12304, Start Num: 26  
Candidate Starts for TNguyen7\_16:  
(Start: 26 @12125 has 551 MA's), (32, 12161), (33, 12164), (54, 12269),

Gene: TWAMP\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for TWAMP\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Tailonex\_14 Start: 11950, Stop: 12099, Start Num: 26  
Candidate Starts for Tailonex\_14:  
(Start: 26 @11950 has 551 MA's),

Gene: Takoda\_13 Start: 8667, Stop: 8873, Start Num: 26  
Candidate Starts for Takoda\_13:  
(Start: 14 @8619 has 1 MA's), (Start: 26 @8667 has 551 MA's), (45, 8760),

Gene: Taquarus\_16 Start: 12481, Stop: 12687, Start Num: 26  
Candidate Starts for Taquarus\_16:  
(Start: 26 @12481 has 551 MA's),

Gene: TarsusIV\_17 Start: 13232, Stop: 13414, Start Num: 26  
Candidate Starts for TarsusIV\_17:  
(Start: 26 @13232 has 551 MA's),

Gene: Taurus\_18 Start: 12600, Stop: 12785, Start Num: 26  
Candidate Starts for Taurus\_18:  
(Start: 26 @12600 has 551 MA's), (38, 12663),

Gene: Temprado\_20 Start: 13280, Stop: 13477, Start Num: 26  
Candidate Starts for Temprado\_20:  
(8, 13214), (11, 13226), (19, 13259), (Start: 26 @13280 has 551 MA's),

Gene: Terrific\_21 Start: 13693, Stop: 13872, Start Num: 26  
Candidate Starts for Terrific\_21:  
(Start: 26 @13693 has 551 MA's),

Gene: Texage\_16 Start: 12696, Stop: 12875, Start Num: 26  
Candidate Starts for Texage\_16:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Thanksgivukkah\_16 Start: 12482, Stop: 12688, Start Num: 26  
Candidate Starts for Thanksgivukkah\_16:

(Start: 26 @12482 has 551 MA's),

Gene: Tiffany\_18 Start: 12496, Stop: 12681, Start Num: 26

Candidate Starts for Tiffany\_18:

(Start: 26 @12496 has 551 MA's), (38, 12559),

Gene: Timothy\_17 Start: 13757, Stop: 13924, Start Num: 26

Candidate Starts for Timothy\_17:

(22, 13739), (Start: 26 @13757 has 551 MA's), (32, 13793), (46, 13841),

Gene: Timshel\_17 Start: 14080, Stop: 14268, Start Num: 26

Candidate Starts for Timshel\_17:

(Start: 26 @14080 has 551 MA's),

Gene: TinaFeyge\_16 Start: 12475, Stop: 12681, Start Num: 26

Candidate Starts for TinaFeyge\_16:

(Start: 26 @12475 has 551 MA's),

Gene: TinyPebbles\_18 Start: 12685, Stop: 12870, Start Num: 26

Candidate Starts for TinyPebbles\_18:

(Start: 26 @12685 has 551 MA's), (38, 12748),

Gene: TinyTimmy\_17 Start: 13800, Stop: 13967, Start Num: 26

Candidate Starts for TinyTimmy\_17:

(22, 13782), (Start: 26 @13800 has 551 MA's), (32, 13836), (46, 13884),

Gene: Tinybot\_15 Start: 12456, Stop: 12662, Start Num: 26

Candidate Starts for Tinybot\_15:

(Start: 26 @12456 has 551 MA's),

Gene: TipsytheTRex\_16 Start: 12263, Stop: 12424, Start Num: 26

Candidate Starts for TipsytheTRex\_16:

(Start: 26 @12263 has 551 MA's), (33, 12302),

Gene: TiroTheta9\_16 Start: 12475, Stop: 12681, Start Num: 26

Candidate Starts for TiroTheta9\_16:

(Start: 26 @12475 has 551 MA's),

Gene: Toaka\_16 Start: 12274, Stop: 12492, Start Num: 26

Candidate Starts for Toaka\_16:

(Start: 26 @12274 has 551 MA's), (33, 12313), (42, 12358),

Gene: Todacoro\_17 Start: 12696, Stop: 12875, Start Num: 26

Candidate Starts for Todacoro\_17:

(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Tomathan\_20 Start: 13113, Stop: 13268, Start Num: 26

Candidate Starts for Tomathan\_20:

(Start: 26 @13113 has 551 MA's),

Gene: Topanga\_16 Start: 12392, Stop: 12577, Start Num: 26

Candidate Starts for Topanga\_16:

(Start: 26 @12392 has 551 MA's),

Gene: Toro\_19 Start: 14171, Stop: 14332, Start Num: 26  
Candidate Starts for Toro\_19:  
(Start: 26 @14171 has 551 MA's), (31, 14204), (33, 14210), (39, 14243),

Gene: Travvers\_20 Start: 13113, Stop: 13268, Start Num: 26  
Candidate Starts for Travvers\_20:  
(Start: 26 @13113 has 551 MA's),

Gene: Trike\_14 Start: 10362, Stop: 10547, Start Num: 26  
Candidate Starts for Trike\_14:  
(Start: 26 @10362 has 551 MA's),

Gene: Tristan\_18 Start: 14947, Stop: 15129, Start Num: 26  
Candidate Starts for Tristan\_18:  
(Start: 21 @14929 has 2 MA's), (Start: 26 @14947 has 551 MA's),

Gene: Trixie\_20 Start: 14845, Stop: 15027, Start Num: 26  
Candidate Starts for Trixie\_20:  
(Start: 26 @14845 has 551 MA's),

Gene: Trooper\_17 Start: 13023, Stop: 13205, Start Num: 26  
Candidate Starts for Trooper\_17:  
(Start: 26 @13023 has 551 MA's),

Gene: TroyPia\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for TroyPia\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Tubs\_18 Start: 13913, Stop: 14137, Start Num: 26  
Candidate Starts for Tubs\_18:  
(Start: 17 @13889 has 5 MA's), (Start: 26 @13913 has 551 MA's), (33, 13952), (45, 14003), (48, 14015), (51, 14063), (56, 14093),

Gene: Tucker\_20 Start: 13278, Stop: 13475, Start Num: 26  
Candidate Starts for Tucker\_20:  
(Start: 26 @13278 has 551 MA's), (45, 13368),

Gene: Turbido\_19 Start: 13673, Stop: 13855, Start Num: 26  
Candidate Starts for Turbido\_19:  
(Start: 13 @13625 has 1 MA's), (Start: 26 @13673 has 551 MA's),

Gene: Twister\_16 Start: 12291, Stop: 12476, Start Num: 26  
Candidate Starts for Twister\_16:  
(Start: 26 @12291 has 551 MA's),

Gene: TygerBlood\_16 Start: 12477, Stop: 12683, Start Num: 26  
Candidate Starts for TygerBlood\_16:  
(Start: 26 @12477 has 551 MA's),

Gene: Ugenie5\_15 Start: 13946, Stop: 14170, Start Num: 26  
Candidate Starts for Ugenie5\_15:

(Start: 17 @13922 has 5 MA's), (Start: 26 @13946 has 551 MA's), (33, 13985), (45, 14036), (48, 14048), (51, 14096), (56, 14126),

Gene: UhSalsa\_13 Start: 8707, Stop: 8913, Start Num: 26  
Candidate Starts for UhSalsa\_13:  
(Start: 26 @8707 has 551 MA's), (45, 8800), (57, 8890),

Gene: Ulysses\_15 Start: 12199, Stop: 12405, Start Num: 26  
Candidate Starts for Ulysses\_15:  
(Start: 26 @12199 has 551 MA's),

Gene: Updawg\_19 Start: 13681, Stop: 13860, Start Num: 26  
Candidate Starts for Updawg\_19:  
(Start: 26 @13681 has 551 MA's),

Gene: VA6\_17 Start: 13196, Stop: 13372, Start Num: 26  
Candidate Starts for VA6\_17:  
(Start: 13 @13148 has 1 MA's), (Start: 26 @13196 has 551 MA's),

Gene: VC3\_20 Start: 13198, Stop: 13377, Start Num: 26  
Candidate Starts for VC3\_20:  
(Start: 26 @13198 has 551 MA's),

Gene: Vanisoa\_16 Start: 12000, Stop: 12218, Start Num: 26  
Candidate Starts for Vanisoa\_16:  
(Start: 17 @11976 has 5 MA's), (Start: 26 @12000 has 551 MA's), (33, 12039),

Gene: Veracruz\_16 Start: 12681, Stop: 12875, Start Num: 23  
Candidate Starts for Veracruz\_16:  
(Start: 23 @12681 has 2 MA's), (Start: 26 @12696 has 551 MA's),

Gene: Vix\_18 Start: 12684, Stop: 12869, Start Num: 26  
Candidate Starts for Vix\_18:  
(Start: 26 @12684 has 551 MA's), (38, 12747),

Gene: VohminGhazi\_20 Start: 13284, Stop: 13481, Start Num: 26  
Candidate Starts for VohminGhazi\_20:  
(Start: 26 @13284 has 551 MA's),

Gene: Waits\_19 Start: 12283, Stop: 12453, Start Num: 26  
Candidate Starts for Waits\_19:  
(Start: 26 @12283 has 551 MA's),

Gene: WalterMcMickey\_16 Start: 12291, Stop: 12476, Start Num: 26  
Candidate Starts for WalterMcMickey\_16:  
(Start: 26 @12291 has 551 MA's),

Gene: Wander\_16 Start: 12478, Stop: 12684, Start Num: 26  
Candidate Starts for Wander\_16:  
(Start: 26 @12478 has 551 MA's),

Gene: Warrior24\_19 Start: 12287, Stop: 12457, Start Num: 26  
Candidate Starts for Warrior24\_19:

(Start: 26 @12287 has 551 MA's),

Gene: Watson\_18 Start: 12594, Stop: 12779, Start Num: 26

Candidate Starts for Watson\_18:

(Start: 26 @12594 has 551 MA's), (38, 12657),

Gene: WeiHuaDA\_23 Start: 15447, Stop: 15629, Start Num: 26

Candidate Starts for WeiHuaDA\_23:

(Start: 26 @15447 has 551 MA's),

Gene: Whabigail7\_19 Start: 13661, Stop: 13843, Start Num: 26

Candidate Starts for Whabigail7\_19:

(Start: 13 @13613 has 1 MA's), (Start: 26 @13661 has 551 MA's),

Gene: WideWale\_19 Start: 13681, Stop: 13860, Start Num: 26

Candidate Starts for WideWale\_19:

(Start: 26 @13681 has 551 MA's),

Gene: Wiks\_20 Start: 13260, Stop: 13457, Start Num: 26

Candidate Starts for Wiks\_20:

(Start: 26 @13260 has 551 MA's),

Gene: Wilbur\_16 Start: 12478, Stop: 12684, Start Num: 26

Candidate Starts for Wilbur\_16:

(Start: 26 @12478 has 551 MA's),

Gene: Wile\_16 Start: 12497, Stop: 12694, Start Num: 26

Candidate Starts for Wile\_16:

(Start: 26 @12497 has 551 MA's),

Gene: Wizard007\_16 Start: 12480, Stop: 12686, Start Num: 26

Candidate Starts for Wizard007\_16:

(Start: 26 @12480 has 551 MA's),

Gene: Wolpertinger\_16 Start: 13760, Stop: 13927, Start Num: 26

Candidate Starts for Wolpertinger\_16:

(22, 13742), (Start: 26 @13760 has 551 MA's), (32, 13796), (46, 13844),

Gene: Wooldri\_20 Start: 12513, Stop: 12698, Start Num: 26

Candidate Starts for Wooldri\_20:

(Start: 26 @12513 has 551 MA's), (38, 12576),

Gene: WorldCup\_15 Start: 11982, Stop: 12200, Start Num: 26

Candidate Starts for WorldCup\_15:

(Start: 5 @11913 has 1 MA's), (12, 11937), (Start: 17 @11958 has 5 MA's), (Start: 26 @11982 has 551 MA's), (33, 12021),

Gene: WunderPhul\_20 Start: 13260, Stop: 13457, Start Num: 26

Candidate Starts for WunderPhul\_20:

(Start: 26 @13260 has 551 MA's),

Gene: Xena\_16 Start: 12484, Stop: 12681, Start Num: 26

Candidate Starts for Xena\_16:

(Start: 26 @12484 has 551 MA's),

Gene: XianYue\_17 Start: 13149, Stop: 13334, Start Num: 26

Candidate Starts for XianYue\_17:

(Start: 26 @13149 has 551 MA's),

Gene: Yecey3\_17 Start: 12045, Stop: 12260, Start Num: 26

Candidate Starts for Yecey3\_17:

(10, 11994), (Start: 26 @12045 has 551 MA's), (33, 12084), (42, 12129), (56, 12216),

Gene: YoSam321\_16 Start: 12475, Stop: 12681, Start Num: 26

Candidate Starts for YoSam321\_16:

(Start: 26 @12475 has 551 MA's),

Gene: Yogi\_13 Start: 8675, Stop: 8881, Start Num: 26

Candidate Starts for Yogi\_13:

(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's),

Gene: Yokurt\_20 Start: 13260, Stop: 13457, Start Num: 26

Candidate Starts for Yokurt\_20:

(Start: 26 @13260 has 551 MA's),

Gene: Yoncess\_13 Start: 8675, Stop: 8881, Start Num: 26

Candidate Starts for Yoncess\_13:

(Start: 14 @8627 has 1 MA's), (Start: 26 @8675 has 551 MA's),

Gene: Zaka\_20 Start: 13260, Stop: 13457, Start Num: 26

Candidate Starts for Zaka\_20:

(Start: 26 @13260 has 551 MA's),

Gene: Zarafa\_16 Start: 12217, Stop: 12396, Start Num: 26

Candidate Starts for Zarafa\_16:

(Start: 26 @12217 has 551 MA's), (32, 12253), (33, 12256), (54, 12361),

Gene: Zetzy\_17 Start: 12134, Stop: 12319, Start Num: 26

Candidate Starts for Zetzy\_17:

(Start: 26 @12134 has 551 MA's), (28, 12152),

Gene: Zimmer\_19 Start: 14756, Stop: 14941, Start Num: 26

Candidate Starts for Zimmer\_19:

(4, 14687), (18, 14732), (Start: 26 @14756 has 551 MA's), (30, 14786),

Gene: Zulu\_20 Start: 13259, Stop: 13456, Start Num: 26

Candidate Starts for Zulu\_20:

(Start: 26 @13259 has 551 MA's),