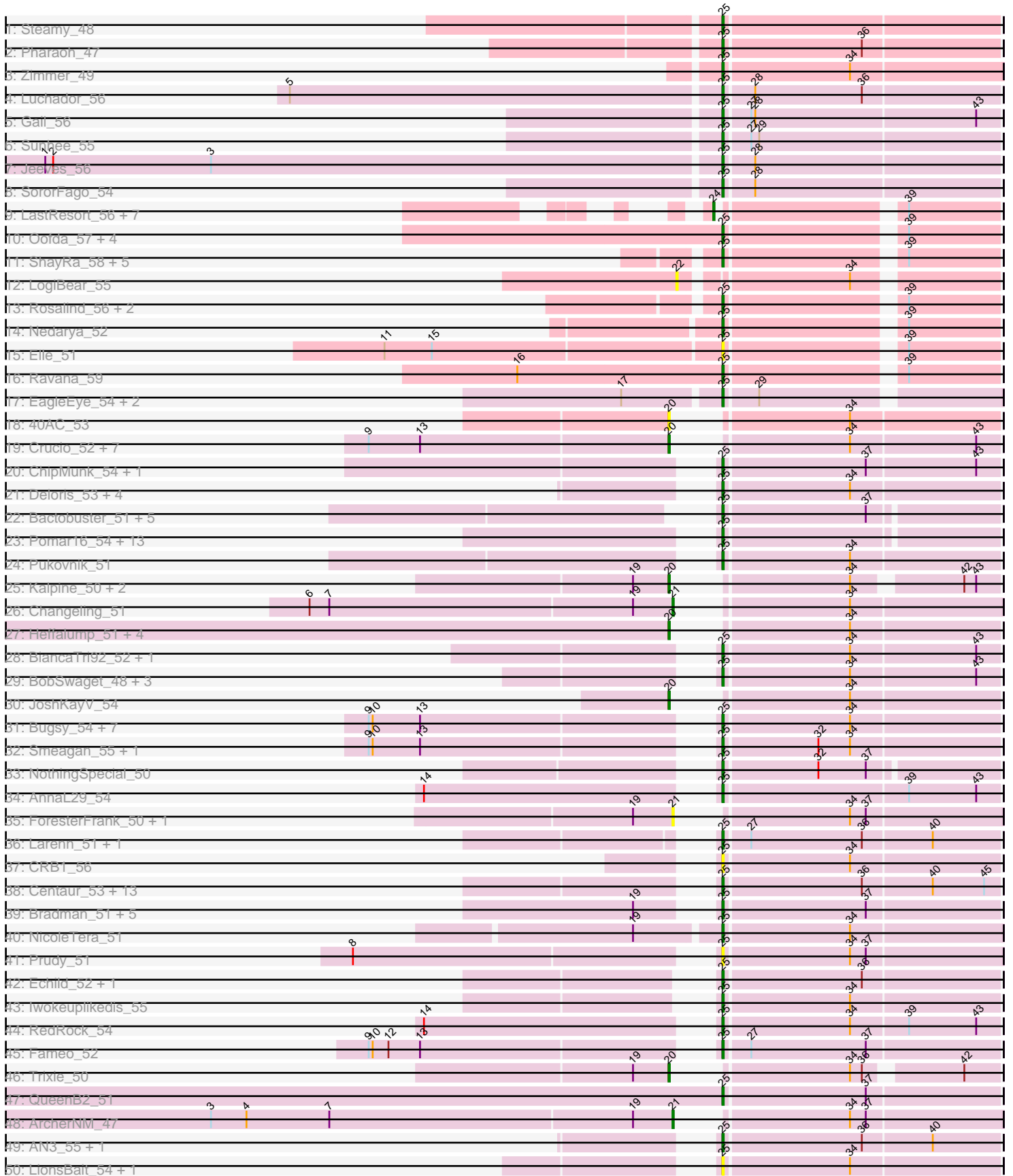


Pham 301074



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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 301074 Report

This analysis was run 06/08/26 on database version 649.

Pham number 301074 has 206 members, 37 are drafts.

Phages represented in each track:

- Track 1 : Steamy\_48
- Track 2 : Pharaoh\_47
- Track 3 : Zimmer\_49
- Track 4 : Luchador\_56
- Track 5 : Gail\_56
- Track 6 : Sunhee\_55
- Track 7 : Jeeves\_56
- Track 8 : SororFago\_54
- Track 9 : LastResort\_56, JSwag\_56, Boohoo\_57, Anaysia\_57, DekHockey33\_57, Nebulosus\_56, Epsocamisio\_55, ReMo\_56
- Track 10 : Oofda\_57, Waits\_57, Strosahl\_57, Warrior24\_59, Remus\_57
- Track 11 : ShayRa\_58, Anon\_53, Soups\_58, Looper\_57, KatherineG\_58, Switzerland\_57
- Track 12 : LogiBear\_55
- Track 13 : Rosalind\_56, MinecraftSteve\_58, Battleship\_59
- Track 14 : Nedarya\_52
- Track 15 : Elle\_51
- Track 16 : Ravana\_59
- Track 17 : EagleEye\_54, PainterBoy\_53, Lucyedi\_53
- Track 18 : 40AC\_53
- Track 19 : Crucio\_52, SemperFi\_53, FiringLine\_52, Georgie2\_53, SweetiePie\_52, Power\_51, SnapTap\_52, QueenBeesly\_52
- Track 20 : ChipMunk\_54, EvilGenius\_54
- Track 21 : Deloris\_53, BengiVuitton\_54, 20ES\_55, LadyBird\_57, First\_0054
- Track 22 : Bactobuster\_51, Jaan\_52, Tristan\_51, IronMan\_52, Phaded\_53, Landor\_52
- Track 23 : Pomar16\_54, C3\_50, Duplo\_54, Travvers\_54, DBQu4n\_54, AN9\_55, Tomathan\_54, D29\_51, Naji\_54, D32\_53, Kerberos\_54, VC3\_55, StarStuff\_54, ANI8\_55
- Track 24 : Pukovnik\_51
- Track 25 : Kalpine\_50, Colin\_52, WeiHuaDA\_54
- Track 26 : Changeling\_51
- Track 27 : Heffalump\_51, Dalmatian\_53, DudeLittle\_51, Anselm\_53, Retro23\_53
- Track 28 : BiancaTri92\_52, Leogania\_52
- Track 29 : BobSwaget\_48, Miko\_49, Rachaly\_51, Lokk\_49
- Track 30 : JoshKayV\_54

- Track 31 : Bugsy\_54, AbbyPaige\_54, Whabigail7\_53, Turbido\_53, Leviathan\_54, LilTurb\_53, Agape74\_54, Jerm\_54
- Track 32 : Smeagan\_55, Dignity\_54
- Track 33 : NothingSpecial\_50
- Track 34 : AnnaL29\_54
- Track 35 : ForesterFrank\_50, EZMoney23\_50
- Track 36 : Larenn\_51, Malec\_52
- Track 37 : CRB1\_56
- Track 38 : Centaur\_53, Gratitude\_52, HarryHoudini\_53, MiculUcigas\_52, Terrific\_55, Piro94\_52, NaSiaTalie\_52, Sknot\_52, Drake55\_54, Updawg\_53, Flare16\_52, Equemioh13\_53, Baehexic\_51, WideWale\_53
- Track 39 : Bradman\_51, Jsquared\_50, TipsytheTRex\_48, Serenity\_52, Quokka\_50, MajorMajor\_51
- Track 40 : NicoleTera\_51
- Track 41 : Prudy\_51
- Track 42 : Echild\_52, Benvolio\_49
- Track 43 : Iwokeuplikedis\_55
- Track 44 : RedRock\_54
- Track 45 : Fameo\_52
- Track 46 : Trixie\_50
- Track 47 : QueenB2\_51
- Track 48 : ArcherNM\_47
- Track 49 : AN3\_55, VA6\_53
- Track 50 : LionsBait\_54, HippoHollow\_52
- Track 51 : Koduck\_53, L5\_51
- Track 52 : MissWhite\_51
- Track 53 : KingCyrus\_54
- Track 54 : DeerParkTS\_51
- Track 55 : Journey13\_46
- Track 56 : TarsusIV\_51
- Track 57 : Loser\_54
- Track 58 : GaugeLDP\_50
- Track 59 : XianYue\_51
- Track 60 : BabyBack\_51
- Track 61 : Trooper\_53
- Track 62 : HINdeR\_37
- Track 63 : Timshel\_38
- Track 64 : Toro\_39, FlyCatcher\_41, Sheen\_39
- Track 65 : Pioneer\_52, Phaeder\_52, Priya\_52, Catalina\_53, RyeScarlet\_53, ExplosioNervosa\_52, Eidsmoe\_52, EmyBug\_51, Scherzo\_52, Spouty\_52, Myxus\_52, Beemo\_52, Ugenie5\_49, Hanray\_50, Halex\_51, Aliter\_52, PackMan\_51, Onglai\_50, EdogawaKiddo\_50, Ayanochan\_53, Lilleskat\_50, Qobbit\_52, HortumSL17\_52, Conquerage\_52, Jiawan\_50, Sachima\_49, Fayely\_52, Phonnegut\_52, Tubs\_52
- Track 66 : Arissanae\_51, Rahalelujah\_52, CogOmlette\_51, WorldCup\_51, Bellris\_51, Minispark\_51
- Track 67 : MegTheThird\_51, Celestiallunch\_51
- Track 68 : Maminiaina\_51, BogosyJay\_51, Alma\_52
- Track 69 : Elephantoon\_51
- Track 70 : Toaka\_52
- Track 71 : LoneWolf\_53, Darrell\_54
- Track 72 : Vanisoa\_52
- Track 73 : Keziacharles14\_52
- Track 74 : Yecey3\_53

- Track 75 : Stellammi\_126

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

The start number called the most often in the published annotations is 25, it was called in 141 of the 169 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_55, AN3\_55, AN9\_55, ANI8\_55, AbbyPaige\_54, Agape74\_54, Aliter\_52, Alma\_52, AnnaL29\_54, Anon\_53, Arissanae\_51, Ayanochan\_53, BabyBack\_51, Bactobuster\_51, Baehexic\_51, Battleship\_59, Beemo\_52, Bellris\_51, BengiVuitton\_54, Benvolio\_49, BiancaTri92\_52, BobSwaget\_48, BogosyJay\_51, Bradman\_51, Buggy\_54, C3\_50, CRB1\_56, Catalina\_53, Celestialunch\_51, Centaur\_53, ChipMunk\_54, CogOmlette\_51, Conquerage\_52, D29\_51, D32\_53, DBQu4n\_54, Darrell\_54, Deloris\_53, Dignity\_54, Drake55\_54, Duplo\_54, EagleEye\_54, Echild\_52, EdogawaKiddo\_50, Eidsmoe\_52, Elephantoon\_51, Elle\_51, EmyBug\_51, Equemioh13\_53, EvilGenius\_54, ExplosioNervosa\_52, Fameo\_52, Fayely\_52, First\_0054, Flare16\_52, FlyCatcher\_41, Gail\_56, GaugeLDP\_50, Gratitude\_52, Hanray\_50, HarryHoudini\_53, HippoHollow\_52, Horex\_51, HortumSL17\_52, IronMan\_52, Iwokeuplikedis\_55, Jaan\_52, Jeeves\_56, Jerm\_54, Jiawan\_50, Journey13\_46, Jsquared\_50, KatherineG\_58, Kerberos\_54, Keziacharles14\_52, KingCyrus\_54, Koduck\_53, L5\_51, LadyBird\_57, Landor\_52, Larenn\_51, Leogania\_52, Leviathan\_54, LilTurb\_53, Lilleskat\_50, LionsBait\_54, Lokk\_49, LoneWolf\_53, Looper\_57, Loser\_54, Luchador\_56, Lucyedi\_53, MajorMajor\_51, Malec\_52, Maminiaina\_51, MegTheThird\_51, MiculUcigas\_52, Miko\_49, MinecraftSteve\_58, Minispark\_51, MissWhite\_51, Myxus\_52, NaSiaTalie\_52, Naji\_54, Nedarya\_52, NicoleTera\_51, NothingSpecial\_50, Onglai\_50, Oofda\_57, PackMan\_51, PainterBoy\_53, Phaded\_53, Phaeder\_52, Pharaoh\_47, Phonnegut\_52, Pioneer\_52, Piro94\_52, Pomar16\_54, Priya\_52, Prudy\_51, Pukovnik\_51, Qobbit\_52, QueenB2\_51, Quokka\_50, Rachaly\_51, Rahalelujah\_52, Ravana\_59, RedRock\_54, Remus\_57, Rosalind\_56, RyeScarlet\_53, Sachima\_49, Scherzo\_52, Serenity\_52, ShayRa\_58, Sheen\_39, Sknot\_52, Smeagan\_55, SororFago\_54, Soups\_58, Spouty\_52, StarStuff\_54, Steamy\_48, Strosahl\_57, Sunhee\_55, Switzerland\_57, TarsusIV\_51, Terrific\_55, Timshel\_38, TipsytheTRex\_48, Toaka\_52, Tomathan\_54, Toro\_39, Travvers\_54, Tristan\_51, Trooper\_53, Tubs\_52, Turbido\_53, Ugenie5\_49, Updawg\_53, VA6\_53, VC3\_55, Vanisoa\_52, Waits\_57, Warrior24\_59, Whabigail7\_53, WideWale\_53, WorldCup\_51, XianYue\_51, Yecey3\_53, Zimmer\_49,

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

- 

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

- 40AC\_53, Anaysia\_57, Anselm\_53, ArcherNM\_47, Boohoo\_57, Changeling\_51, Colin\_52, Crucio\_52, Dalmatian\_53, DeerParkTS\_51, DekHockey33\_57, DudeLittle\_51, EZMoney23\_50, Epsocamisio\_55, FiringLine\_52, ForesterFrank\_50, Georgie2\_53, HINdeR\_37, Heffalump\_51, JSwag\_56, JoshKayV\_54, Kalpine\_50, LastResort\_56, LogiBear\_55, Nebulosus\_56, Power\_51, QueenBeesly\_52, ReMo\_56, Retro23\_53, SemperFi\_53, SnapTap\_52, Stellammi\_126, SweetiePie\_52, Trixie\_50, WeiHuaDA\_54,

## Summary by start number:

### Start 20:

- Found in 20 of 206 ( 9.7% ) of genes in pham
- Manual Annotations of this start: 16 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 40AC\_53 (A17), Anselm\_53 (A2), Colin\_52 (A2), Crucio\_52 (A2), Dalmatian\_53 (A2), DeerParkTS\_51 (A2), DudeLittle\_51 (A2), FiringLine\_52 (A2), Georgie2\_53 (A2), Heffalump\_51 (A2), JoshKayV\_54 (A2), Kalpine\_50 (A2), Power\_51 (A2), QueenBeesly\_52 (A2), Retro23\_53 (A2), SemperFi\_53 (A2), SnapTap\_52 (A2), SweetiePie\_52 (A2), Trixie\_50 (A2), WeiHuaDA\_54 (A2),

### Start 21:

- Found in 4 of 206 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 2 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArcherNM\_47 (A2), Changeling\_51 (A2), EZMoney23\_50 (A2), ForesterFrank\_50 (A2),

### Start 22:

- Found in 1 of 206 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LogiBear\_55 (A15),

### Start 23:

- Found in 1 of 206 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Stellammi\_126 (UNK),

### Start 24:

- Found in 8 of 206 ( 3.9% ) of genes in pham
- Manual Annotations of this start: 8 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaysia\_57 (A15), Boohoo\_57 (A15), DekHockey33\_57 (A15), Epsocamisio\_55 (A15), JSwag\_56 (A15), LastResort\_56 (A15), Nebulosus\_56 (A15), ReMo\_56 (A15),

### Start 25:

- Found in 171 of 206 ( 83.0% ) of genes in pham
- Manual Annotations of this start: 141 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 20ES\_55 (A2), AN3\_55 (A2), AN9\_55 (A2), ANI8\_55 (A2), AbbyPaige\_54 (A2), Agape74\_54 (A2), Aliter\_52 (A9), Alma\_52 (A9), AnnaL29\_54 (A2), Anon\_53 (A15), Arissanae\_51 (A9), Ayanochan\_53 (A9), BabyBack\_51 (A2), Bactobuster\_51 (A2), Baehexic\_51 (A2), Battleship\_59 (A15), Beemo\_52 (A9), Bellris\_51 (A9), BengiVuitton\_54 (A2), Benvolio\_49 (A2), BiancaTri92\_52 (A2), BobSwaget\_48 (A2), BogosyJay\_51 (A9), Bradman\_51 (A2), Buggy\_54 (A2), C3\_50 (A2), CRB1\_56 (A2), Catalina\_53 (A9), Celestiallunch\_51 (A9), Centaur\_53 (A2), ChipMunk\_54 (A2), CogOmlette\_51 (A9), Conquerage\_52 (A9),

D29\_51 (A2), D32\_53 (A2), DBQu4n\_54 (A2), Darrell\_54 (A9), Deloris\_53 (A2), Dignity\_54 (A2), Drake55\_54 (A2), Duplo\_54 (A2), EagleEye\_54 (A16), Echid\_52 (A2), EdogawaKiddo\_50 (A9), Eidsmoe\_52 (A9), Elephantoon\_51 (A9), Elle\_51 (A15), EmyBug\_51 (A9), Equemioh13\_53 (A2), EvilGenius\_54 (A2), ExplosioNervosa\_52 (A9), Fameo\_52 (A2), Fayely\_52 (A9), First\_0054 (A2), Flare16\_52 (A2), FlyCatcher\_41 (A7), Gail\_56 (A14), GaugeLDP\_50 (A2), Gratitude\_52 (A2), Hanray\_50 (A9), HarryHoudini\_53 (A2), HippoHollow\_52 (A2), Horex\_51 (A9), HortumSL17\_52 (A9), IronMan\_52 (A2), Iwokeuplikedis\_55 (A2), Jaan\_52 (A2), Jeeves\_56 (A14), Jerm\_54 (A2), Jiawan\_50 (A9), Journey13\_46 (A2), Jsquared\_50 (A2), KatherineG\_58 (A15), Kerberos\_54 (A2), Keziacharles14\_52 (A9), KingCyrus\_54 (A2), Koduck\_53 (A2), L5\_51 (A2), LadyBird\_57 (A2), Landor\_52 (A2), Larenn\_51 (A2), Leogania\_52 (A2), Leviathan\_54 (A2), LilTurb\_53 (A2), Lilleskat\_50 (A9), LionsBait\_54 (A2), Lokk\_49 (A2), LoneWolf\_53 (A9), Looper\_57 (A15), Loser\_54 (A2), Luchador\_56 (A14), Lucyedi\_53 (A16), MajorMajor\_51 (A2), Malec\_52 (A2), Maminiaina\_51 (A9), MegTheThird\_51 (A9), MiculUcigas\_52 (A2), Miko\_49 (A2), MinecraftSteve\_58 (A15), Minispark\_51 (A9), MissWhite\_51 (A2), Myxus\_52 (A9), NaSiaTalie\_52 (A2), Naji\_54 (A2), Nedarya\_52 (A15), NicoleTera\_51 (A2), NothingSpecial\_50 (A2), Onglai\_50 (A9), Oofda\_57 (A15), PackMan\_51 (A9), PainterBoy\_53 (A16), Phaded\_53 (A2), Phaeder\_52 (A9), Pharaoh\_47 (A12), Phonnegut\_52 (A9), Pioneer\_52 (A9), Piro94\_52 (A2), Pomar16\_54 (A2), Priya\_52 (A9), Prudy\_51 (A2), Pukovnik\_51 (A2), Qobbit\_52 (A9), QueenB2\_51 (A2), Quokka\_50 (A2), Rachaly\_51 (A2), Rahalelujah\_52 (A9), Ravana\_59 (A15), RedRock\_54 (A2), Remus\_57 (A15), Rosalind\_56 (A15), RyeScarlet\_53 (A9), Sachima\_49 (A9), Scherzo\_52 (A9), Serenity\_52 (A2), ShayRa\_58 (A15), Sheen\_39 (A7), Sknot\_52 (A2), Smeagan\_55 (A2), SororFago\_54 (A14), Soups\_58 (A15), Spouty\_52 (A9), StarStuff\_54 (A2), Steamy\_48 (A12), Strosahl\_57 (A15), Sunhee\_55 (A14), Switzerland\_57 (A15), TarsusIV\_51 (A2), Terrific\_55 (A2), Timshel\_38 (A7), TipsytheTRex\_48 (A2), Toaka\_52 (A9), Tomathan\_54 (A2), Toro\_39 (A7), Travvers\_54 (A2), Tristan\_51 (A2), Trooper\_53 (A2), Tubs\_52 (A9), Turbido\_53 (A2), Ugenie5\_49 (A9), Updawg\_53 (A2), VA6\_53 (A2), VC3\_55 (A2), Vanisoa\_52 (A9), Waits\_57 (A15), Warrior24\_59 (A15), Whabigail7\_53 (A2), WideWale\_53 (A2), WorldCup\_51 (A9), XianYue\_51 (A2), Yecey3\_53 (A9), Zimmer\_49 (A12),

Start 30:

- Found in 1 of 206 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 169
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HINdeR\_37 (A7),

### Summary by clusters:

There are 9 clusters represented in this pham: A15, A14, A17, A16, A12, A2, A7, A9, UNK,

Info for manual annotations of cluster A12:

- Start number 25 was manually annotated 3 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 25 was manually annotated 5 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 24 was manually annotated 8 times for cluster A15.
- Start number 25 was manually annotated 16 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 25 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 20 was manually annotated 16 times for cluster A2.
- Start number 21 was manually annotated 2 times for cluster A2.
- Start number 25 was manually annotated 80 times for cluster A2.

Info for manual annotations of cluster A7:

- Start number 25 was manually annotated 2 times for cluster A7.
- Start number 30 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 25 was manually annotated 32 times for cluster A9.

Info for manual annotations of cluster UNK:

- Start number 23 was manually annotated 1 time for cluster UNK.

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

Gene: 20ES\_55 Start: 36467, Stop: 36264, Start Num: 25

Candidate Starts for 20ES\_55:

(Start: 25 @36467 has 141 MA's), (34, 36374),

Gene: 40AC\_53 Start: 37199, Stop: 36996, Start Num: 20

Candidate Starts for 40AC\_53:

(Start: 20 @37199 has 16 MA's), (34, 37106),

Gene: AN3\_55 Start: 35152, Stop: 34949, Start Num: 25

Candidate Starts for AN3\_55:

(Start: 25 @35152 has 141 MA's), (36, 35050), (40, 34999),

Gene: AN9\_55 Start: 36177, Stop: 35980, Start Num: 25

Candidate Starts for AN9\_55:

(Start: 25 @36177 has 141 MA's),

Gene: ANI8\_55 Start: 36177, Stop: 35980, Start Num: 25

Candidate Starts for ANI8\_55:

(Start: 25 @36177 has 141 MA's),

Gene: AbbyPaige\_54 Start: 36398, Stop: 36195, Start Num: 25

Candidate Starts for AbbyPaige\_54:

(9, 36632), (10, 36629), (13, 36593), (Start: 25 @36398 has 141 MA's), (34, 36305),

Gene: Agape74\_54 Start: 36392, Stop: 36189, Start Num: 25

Candidate Starts for Agape74\_54:

(9, 36626), (10, 36623), (13, 36587), (Start: 25 @36392 has 141 MA's), (34, 36299),

Gene: Aliter\_52 Start: 35801, Stop: 35598, Start Num: 25

Candidate Starts for Aliter\_52:  
(Start: 25 @35801 has 141 MA's), (36, 35699), (38, 35678),

Gene: Alma\_52 Start: 35981, Stop: 35778, Start Num: 25  
Candidate Starts for Alma\_52:  
(Start: 25 @35981 has 141 MA's),

Gene: Anaysia\_57 Start: 35107, Stop: 34916, Start Num: 24  
Candidate Starts for Anaysia\_57:  
(Start: 24 @35107 has 8 MA's), (39, 34984),

Gene: AnnaL29\_54 Start: 36947, Stop: 36744, Start Num: 25  
Candidate Starts for AnnaL29\_54:  
(14, 37142), (Start: 25 @36947 has 141 MA's), (39, 36812), (43, 36761),

Gene: Anon\_53 Start: 34405, Stop: 34214, Start Num: 25  
Candidate Starts for Anon\_53:  
(Start: 25 @34405 has 141 MA's), (39, 34282),

Gene: Anselm\_53 Start: 36320, Stop: 36117, Start Num: 20  
Candidate Starts for Anselm\_53:  
(Start: 20 @36320 has 16 MA's), (34, 36227),

Gene: ArcherNM\_47 Start: 35909, Stop: 35703, Start Num: 21  
Candidate Starts for ArcherNM\_47:  
(3, 36257), (4, 36230), (7, 36167), (19, 35939), (Start: 21 @35909 has 2 MA's), (34, 35816), (37, 35804),

Gene: Arissanae\_51 Start: 36505, Stop: 36302, Start Num: 25  
Candidate Starts for Arissanae\_51:  
(Start: 25 @36505 has 141 MA's), (33, 36415),

Gene: Ayanochan\_53 Start: 35959, Stop: 35756, Start Num: 25  
Candidate Starts for Ayanochan\_53:  
(Start: 25 @35959 has 141 MA's), (36, 35857), (38, 35836),

Gene: BabyBack\_51 Start: 36632, Stop: 36429, Start Num: 25  
Candidate Starts for BabyBack\_51:  
(Start: 25 @36632 has 141 MA's), (36, 36530), (39, 36497),

Gene: Bactobuster\_51 Start: 36870, Stop: 36673, Start Num: 25  
Candidate Starts for Bactobuster\_51:  
(Start: 25 @36870 has 141 MA's), (37, 36765),

Gene: Baehexic\_51 Start: 36076, Stop: 35873, Start Num: 25  
Candidate Starts for Baehexic\_51:  
(Start: 25 @36076 has 141 MA's), (36, 35974), (40, 35923), (45, 35884),

Gene: Battleship\_59 Start: 35378, Stop: 35187, Start Num: 25  
Candidate Starts for Battleship\_59:  
(Start: 25 @35378 has 141 MA's), (39, 35255),

Gene: Beemo\_52 Start: 35971, Stop: 35768, Start Num: 25

Candidate Starts for Beemo\_52:  
(Start: 25 @35971 has 141 MA's), (36, 35869), (38, 35848),

Gene: Bellris\_51 Start: 35442, Stop: 35239, Start Num: 25  
Candidate Starts for Bellris\_51:  
(Start: 25 @35442 has 141 MA's), (33, 35352),

Gene: BengiVuitton\_54 Start: 36435, Stop: 36232, Start Num: 25  
Candidate Starts for BengiVuitton\_54:  
(Start: 25 @36435 has 141 MA's), (34, 36342),

Gene: Benvolio\_49 Start: 35345, Stop: 35142, Start Num: 25  
Candidate Starts for Benvolio\_49:  
(Start: 25 @35345 has 141 MA's), (36, 35243),

Gene: BiancaTri92\_52 Start: 36725, Stop: 36522, Start Num: 25  
Candidate Starts for BiancaTri92\_52:  
(Start: 25 @36725 has 141 MA's), (34, 36632), (43, 36539),

Gene: BobSwaget\_48 Start: 34748, Stop: 34545, Start Num: 25  
Candidate Starts for BobSwaget\_48:  
(Start: 25 @34748 has 141 MA's), (34, 34655), (43, 34562),

Gene: BogosyJay\_51 Start: 35686, Stop: 35495, Start Num: 25  
Candidate Starts for BogosyJay\_51:  
(Start: 25 @35686 has 141 MA's),

Gene: Boohoo\_57 Start: 35107, Stop: 34916, Start Num: 24  
Candidate Starts for Boohoo\_57:  
(Start: 24 @35107 has 8 MA's), (39, 34984),

Gene: Bradman\_51 Start: 34916, Stop: 34713, Start Num: 25  
Candidate Starts for Bradman\_51:  
(19, 34952), (Start: 25 @34916 has 141 MA's), (37, 34811),

Gene: Buggy\_54 Start: 36449, Stop: 36246, Start Num: 25  
Candidate Starts for Buggy\_54:  
(9, 36683), (10, 36680), (13, 36644), (Start: 25 @36449 has 141 MA's), (34, 36356),

Gene: C3\_50 Start: 36177, Stop: 35980, Start Num: 25  
Candidate Starts for C3\_50:  
(Start: 25 @36177 has 141 MA's),

Gene: CRB1\_56 Start: 36810, Stop: 36607, Start Num: 25  
Candidate Starts for CRB1\_56:  
(Start: 25 @36810 has 141 MA's), (34, 36717),

Gene: Catalina\_53 Start: 35874, Stop: 35671, Start Num: 25  
Candidate Starts for Catalina\_53:  
(Start: 25 @35874 has 141 MA's), (36, 35772), (38, 35751),

Gene: Celestiallunch\_51 Start: 35526, Stop: 35323, Start Num: 25  
Candidate Starts for Celestiallunch\_51:

(Start: 25 @35526 has 141 MA's), (31, 35466), (34, 35433),

Gene: Centaur\_53 Start: 36293, Stop: 36090, Start Num: 25

Candidate Starts for Centaur\_53:

(Start: 25 @36293 has 141 MA's), (36, 36191), (40, 36140), (45, 36101),

Gene: Changeling\_51 Start: 36504, Stop: 36298, Start Num: 21

Candidate Starts for Changeling\_51:

(6, 36777), (7, 36762), (19, 36534), (Start: 21 @36504 has 2 MA's), (34, 36411),

Gene: ChipMunk\_54 Start: 37667, Stop: 37464, Start Num: 25

Candidate Starts for ChipMunk\_54:

(Start: 25 @37667 has 141 MA's), (37, 37562), (43, 37481),

Gene: CogOmlette\_51 Start: 35439, Stop: 35236, Start Num: 25

Candidate Starts for CogOmlette\_51:

(Start: 25 @35439 has 141 MA's), (33, 35349),

Gene: Colin\_52 Start: 36294, Stop: 36103, Start Num: 20

Candidate Starts for Colin\_52:

(19, 36321), (Start: 20 @36294 has 16 MA's), (34, 36201), (42, 36129), (43, 36120),

Gene: Conquerage\_52 Start: 35945, Stop: 35742, Start Num: 25

Candidate Starts for Conquerage\_52:

(Start: 25 @35945 has 141 MA's), (36, 35843), (38, 35822),

Gene: Crucio\_52 Start: 35901, Stop: 35698, Start Num: 20

Candidate Starts for Crucio\_52:

(9, 36126), (13, 36087), (Start: 20 @35901 has 16 MA's), (34, 35808), (43, 35715),

Gene: D29\_51 Start: 35759, Stop: 35562, Start Num: 25

Candidate Starts for D29\_51:

(Start: 25 @35759 has 141 MA's),

Gene: D32\_53 Start: 35759, Stop: 35562, Start Num: 25

Candidate Starts for D32\_53:

(Start: 25 @35759 has 141 MA's),

Gene: DBQu4n\_54 Start: 35740, Stop: 35543, Start Num: 25

Candidate Starts for DBQu4n\_54:

(Start: 25 @35740 has 141 MA's),

Gene: Dalmatian\_53 Start: 36293, Stop: 36090, Start Num: 20

Candidate Starts for Dalmatian\_53:

(Start: 20 @36293 has 16 MA's), (34, 36200),

Gene: Darrell\_54 Start: 36574, Stop: 36371, Start Num: 25

Candidate Starts for Darrell\_54:

(Start: 25 @36574 has 141 MA's), (34, 36481), (39, 36439),

Gene: DeerParkTS\_51 Start: 35415, Stop: 35209, Start Num: 20

Candidate Starts for DeerParkTS\_51:

(Start: 20 @35415 has 16 MA's), (34, 35322),

Gene: DekHockey33\_57 Start: 35399, Stop: 35208, Start Num: 24  
Candidate Starts for DekHockey33\_57:  
(Start: 24 @35399 has 8 MA's), (39, 35276),

Gene: Deloris\_53 Start: 36104, Stop: 35901, Start Num: 25  
Candidate Starts for Deloris\_53:  
(Start: 25 @36104 has 141 MA's), (34, 36011),

Gene: Dignity\_54 Start: 36472, Stop: 36269, Start Num: 25  
Candidate Starts for Dignity\_54:  
(9, 36706), (10, 36703), (13, 36667), (Start: 25 @36472 has 141 MA's), (32, 36403), (34, 36379),

Gene: Drake55\_54 Start: 36372, Stop: 36169, Start Num: 25  
Candidate Starts for Drake55\_54:  
(Start: 25 @36372 has 141 MA's), (36, 36270), (40, 36219), (45, 36180),

Gene: DudeLittle\_51 Start: 36059, Stop: 35856, Start Num: 20  
Candidate Starts for DudeLittle\_51:  
(Start: 20 @36059 has 16 MA's), (34, 35966),

Gene: Duplo\_54 Start: 35796, Stop: 35599, Start Num: 25  
Candidate Starts for Duplo\_54:  
(Start: 25 @35796 has 141 MA's),

Gene: EZMoney23\_50 Start: 35817, Stop: 35611, Start Num: 21  
Candidate Starts for EZMoney23\_50:  
(19, 35847), (Start: 21 @35817 has 2 MA's), (34, 35724), (37, 35712),

Gene: EagleEye\_54 Start: 35531, Stop: 35337, Start Num: 25  
Candidate Starts for EagleEye\_54:  
(17, 35600), (Start: 25 @35531 has 141 MA's), (29, 35507),

Gene: Echild\_52 Start: 35369, Stop: 35166, Start Num: 25  
Candidate Starts for Echild\_52:  
(Start: 25 @35369 has 141 MA's), (36, 35267),

Gene: EdogawaKiddo\_50 Start: 35922, Stop: 35719, Start Num: 25  
Candidate Starts for EdogawaKiddo\_50:  
(Start: 25 @35922 has 141 MA's), (36, 35820), (38, 35799),

Gene: Eidsmoe\_52 Start: 35937, Stop: 35734, Start Num: 25  
Candidate Starts for Eidsmoe\_52:  
(Start: 25 @35937 has 141 MA's), (36, 35835), (38, 35814),

Gene: Elephantoon\_51 Start: 35319, Stop: 35116, Start Num: 25  
Candidate Starts for Elephantoon\_51:  
(Start: 25 @35319 has 141 MA's), (33, 35229), (39, 35184),

Gene: Elle\_51 Start: 33213, Stop: 33022, Start Num: 25  
Candidate Starts for Elle\_51:  
(11, 33462), (15, 33426), (Start: 25 @33213 has 141 MA's), (39, 33090),

Gene: EmyBug\_51 Start: 35939, Stop: 35736, Start Num: 25  
Candidate Starts for EmyBug\_51:  
(Start: 25 @35939 has 141 MA's), (36, 35837), (38, 35816),

Gene: Epsocamisio\_55 Start: 34642, Stop: 34451, Start Num: 24  
Candidate Starts for Epsocamisio\_55:  
(Start: 24 @34642 has 8 MA's), (39, 34519),

Gene: Equemioh13\_53 Start: 36195, Stop: 35992, Start Num: 25  
Candidate Starts for Equemioh13\_53:  
(Start: 25 @36195 has 141 MA's), (36, 36093), (40, 36042), (45, 36003),

Gene: EvilGenius\_54 Start: 37668, Stop: 37465, Start Num: 25  
Candidate Starts for EvilGenius\_54:  
(Start: 25 @37668 has 141 MA's), (37, 37563), (43, 37482),

Gene: ExplosioNervosa\_52 Start: 36005, Stop: 35802, Start Num: 25  
Candidate Starts for ExplosioNervosa\_52:  
(Start: 25 @36005 has 141 MA's), (36, 35903), (38, 35882),

Gene: Fameo\_52 Start: 36229, Stop: 36026, Start Num: 25  
Candidate Starts for Fameo\_52:  
(9, 36463), (10, 36460), (12, 36448), (13, 36424), (Start: 25 @36229 has 141 MA's), (27, 36211), (37, 36124),

Gene: Fayely\_52 Start: 35906, Stop: 35703, Start Num: 25  
Candidate Starts for Fayely\_52:  
(Start: 25 @35906 has 141 MA's), (36, 35804), (38, 35783),

Gene: FiringLine\_52 Start: 35882, Stop: 35679, Start Num: 20  
Candidate Starts for FiringLine\_52:  
(9, 36107), (13, 36068), (Start: 20 @35882 has 16 MA's), (34, 35789), (43, 35696),

Gene: First\_0054 Start: 36367, Stop: 36164, Start Num: 25  
Candidate Starts for First\_0054:  
(Start: 25 @36367 has 141 MA's), (34, 36274),

Gene: Flare16\_52 Start: 35954, Stop: 35751, Start Num: 25  
Candidate Starts for Flare16\_52:  
(Start: 25 @35954 has 141 MA's), (36, 35852), (40, 35801), (45, 35762),

Gene: FlyCatcher\_41 Start: 30344, Stop: 30156, Start Num: 25  
Candidate Starts for FlyCatcher\_41:  
(Start: 25 @30344 has 141 MA's), (39, 30221), (41, 30197), (43, 30170), (44, 30167),

Gene: ForesterFrank\_50 Start: 36570, Stop: 36364, Start Num: 21  
Candidate Starts for ForesterFrank\_50:  
(19, 36600), (Start: 21 @36570 has 2 MA's), (34, 36477), (37, 36465),

Gene: Gail\_56 Start: 36974, Stop: 36771, Start Num: 25  
Candidate Starts for Gail\_56:  
(Start: 25 @36974 has 141 MA's), (27, 36956), (28, 36953), (43, 36788),

Gene: GaugeLDP\_50 Start: 36223, Stop: 36020, Start Num: 25  
Candidate Starts for GaugeLDP\_50:  
(9, 36457), (11, 36445), (Start: 25 @36223 has 141 MA's), (36, 36121), (39, 36088),

Gene: Georgie2\_53 Start: 35927, Stop: 35724, Start Num: 20  
Candidate Starts for Georgie2\_53:  
(9, 36152), (13, 36113), (Start: 20 @35927 has 16 MA's), (34, 35834), (43, 35741),

Gene: Gratitude\_52 Start: 36195, Stop: 35992, Start Num: 25  
Candidate Starts for Gratitude\_52:  
(Start: 25 @36195 has 141 MA's), (36, 36093), (40, 36042), (45, 36003),

Gene: HINdeR\_37 Start: 30215, Stop: 30078, Start Num: 30  
Candidate Starts for HINdeR\_37:  
(Start: 30 @30215 has 1 MA's), (39, 30143), (43, 30092), (44, 30089),

Gene: Hanray\_50 Start: 35926, Stop: 35723, Start Num: 25  
Candidate Starts for Hanray\_50:  
(Start: 25 @35926 has 141 MA's), (36, 35824), (38, 35803),

Gene: HarryHoudini\_53 Start: 36381, Stop: 36178, Start Num: 25  
Candidate Starts for HarryHoudini\_53:  
(Start: 25 @36381 has 141 MA's), (36, 36279), (40, 36228), (45, 36189),

Gene: Heffalump\_51 Start: 36700, Stop: 36497, Start Num: 20  
Candidate Starts for Heffalump\_51:  
(Start: 20 @36700 has 16 MA's), (34, 36607),

Gene: HippoHollow\_52 Start: 37460, Stop: 37257, Start Num: 25  
Candidate Starts for HippoHollow\_52:  
(Start: 25 @37460 has 141 MA's), (34, 37367),

Gene: Horex\_51 Start: 35942, Stop: 35739, Start Num: 25  
Candidate Starts for Horex\_51:  
(Start: 25 @35942 has 141 MA's), (36, 35840), (38, 35819),

Gene: HortumSL17\_52 Start: 35873, Stop: 35670, Start Num: 25  
Candidate Starts for HortumSL17\_52:  
(Start: 25 @35873 has 141 MA's), (36, 35771), (38, 35750),

Gene: IronMan\_52 Start: 37053, Stop: 36856, Start Num: 25  
Candidate Starts for IronMan\_52:  
(Start: 25 @37053 has 141 MA's), (37, 36948),

Gene: Iwokeuplikedis\_55 Start: 36010, Stop: 35807, Start Num: 25  
Candidate Starts for Iwokeuplikedis\_55:  
(Start: 25 @36010 has 141 MA's), (34, 35917),

Gene: JSwag\_56 Start: 34831, Stop: 34640, Start Num: 24  
Candidate Starts for JSwag\_56:  
(Start: 24 @34831 has 8 MA's), (39, 34708),

Gene: Jaan\_52 Start: 37225, Stop: 37028, Start Num: 25

Candidate Starts for Jaan\_52:  
(Start: 25 @37225 has 141 MA's), (37, 37120),

Gene: Jeeves\_56 Start: 35746, Stop: 35543, Start Num: 25  
Candidate Starts for Jeeves\_56:  
(1, 36253), (2, 36247), (3, 36127), (Start: 25 @35746 has 141 MA's), (28, 35725),

Gene: Jerm\_54 Start: 36464, Stop: 36261, Start Num: 25  
Candidate Starts for Jerm\_54:  
(9, 36698), (10, 36695), (13, 36659), (Start: 25 @36464 has 141 MA's), (34, 36371),

Gene: Jiawan\_50 Start: 35958, Stop: 35755, Start Num: 25  
Candidate Starts for Jiawan\_50:  
(Start: 25 @35958 has 141 MA's), (36, 35856), (38, 35835),

Gene: JoshKayV\_54 Start: 36567, Stop: 36364, Start Num: 20  
Candidate Starts for JoshKayV\_54:  
(Start: 20 @36567 has 16 MA's), (34, 36474),

Gene: Journey13\_46 Start: 34280, Stop: 34077, Start Num: 25  
Candidate Starts for Journey13\_46:  
(Start: 25 @34280 has 141 MA's), (34, 34187), (36, 34178),

Gene: Jsquared\_50 Start: 34885, Stop: 34682, Start Num: 25  
Candidate Starts for Jsquared\_50:  
(19, 34921), (Start: 25 @34885 has 141 MA's), (37, 34780),

Gene: Kalpine\_50 Start: 36165, Stop: 35974, Start Num: 20  
Candidate Starts for Kalpine\_50:  
(19, 36192), (Start: 20 @36165 has 16 MA's), (34, 36072), (42, 36000), (43, 35991),

Gene: KatherineG\_58 Start: 35369, Stop: 35178, Start Num: 25  
Candidate Starts for KatherineG\_58:  
(Start: 25 @35369 has 141 MA's), (39, 35246),

Gene: Kerberos\_54 Start: 35758, Stop: 35561, Start Num: 25  
Candidate Starts for Kerberos\_54:  
(Start: 25 @35758 has 141 MA's),

Gene: Keziacharles14\_52 Start: 36997, Stop: 36794, Start Num: 25  
Candidate Starts for Keziacharles14\_52:  
(Start: 25 @36997 has 141 MA's), (34, 36904), (39, 36862), (43, 36811),

Gene: KingCyrus\_54 Start: 37663, Stop: 37460, Start Num: 25  
Candidate Starts for KingCyrus\_54:  
(Start: 25 @37663 has 141 MA's), (37, 37558), (43, 37477),

Gene: Koduck\_53 Start: 35170, Stop: 34967, Start Num: 25  
Candidate Starts for Koduck\_53:  
(19, 35206), (Start: 25 @35170 has 141 MA's), (32, 35101), (37, 35065),

Gene: L5\_51 Start: 35245, Stop: 35042, Start Num: 25  
Candidate Starts for L5\_51:

(19, 35281), (Start: 25 @35245 has 141 MA's), (32, 35176), (37, 35140),

Gene: LadyBird\_57 Start: 36796, Stop: 36593, Start Num: 25

Candidate Starts for LadyBird\_57:

(Start: 25 @36796 has 141 MA's), (34, 36703),

Gene: Landor\_52 Start: 37131, Stop: 36934, Start Num: 25

Candidate Starts for Landor\_52:

(Start: 25 @37131 has 141 MA's), (37, 37026),

Gene: Larenn\_51 Start: 36058, Stop: 35855, Start Num: 25

Candidate Starts for Larenn\_51:

(Start: 25 @36058 has 141 MA's), (27, 36040), (36, 35956), (40, 35905),

Gene: LastResort\_56 Start: 34883, Stop: 34692, Start Num: 24

Candidate Starts for LastResort\_56:

(Start: 24 @34883 has 8 MA's), (39, 34760),

Gene: Leogania\_52 Start: 37103, Stop: 36900, Start Num: 25

Candidate Starts for Leogania\_52:

(Start: 25 @37103 has 141 MA's), (34, 37010), (43, 36917),

Gene: Leviathan\_54 Start: 36521, Stop: 36318, Start Num: 25

Candidate Starts for Leviathan\_54:

(9, 36755), (10, 36752), (13, 36716), (Start: 25 @36521 has 141 MA's), (34, 36428),

Gene: LilTurb\_53 Start: 36345, Stop: 36142, Start Num: 25

Candidate Starts for LilTurb\_53:

(9, 36579), (10, 36576), (13, 36540), (Start: 25 @36345 has 141 MA's), (34, 36252),

Gene: Lilleskat\_50 Start: 35875, Stop: 35672, Start Num: 25

Candidate Starts for Lilleskat\_50:

(Start: 25 @35875 has 141 MA's), (36, 35773), (38, 35752),

Gene: LionsBait\_54 Start: 37461, Stop: 37258, Start Num: 25

Candidate Starts for LionsBait\_54:

(Start: 25 @37461 has 141 MA's), (34, 37368),

Gene: LogiBear\_55 Start: 34834, Stop: 34622, Start Num: 22

Candidate Starts for LogiBear\_55:

(22, 34834), (34, 34720),

Gene: Lokk\_49 Start: 35288, Stop: 35085, Start Num: 25

Candidate Starts for Lokk\_49:

(Start: 25 @35288 has 141 MA's), (34, 35195), (43, 35102),

Gene: LoneWolf\_53 Start: 35913, Stop: 35710, Start Num: 25

Candidate Starts for LoneWolf\_53:

(Start: 25 @35913 has 141 MA's), (34, 35820), (39, 35778),

Gene: Looper\_57 Start: 34860, Stop: 34669, Start Num: 25

Candidate Starts for Looper\_57:

(Start: 25 @34860 has 141 MA's), (39, 34737),

Gene: Loser\_54 Start: 36918, Stop: 36712, Start Num: 25  
Candidate Starts for Loser\_54:  
(Start: 25 @36918 has 141 MA's), (34, 36825), (39, 36783),

Gene: Luchador\_56 Start: 37531, Stop: 37328, Start Num: 25  
Candidate Starts for Luchador\_56:  
(5, 37852), (Start: 25 @37531 has 141 MA's), (28, 37510), (36, 37429),

Gene: Lucyedi\_53 Start: 35727, Stop: 35533, Start Num: 25  
Candidate Starts for Lucyedi\_53:  
(17, 35796), (Start: 25 @35727 has 141 MA's), (29, 35703),

Gene: MajorMajor\_51 Start: 34916, Stop: 34713, Start Num: 25  
Candidate Starts for MajorMajor\_51:  
(19, 34952), (Start: 25 @34916 has 141 MA's), (37, 34811),

Gene: Malec\_52 Start: 36625, Stop: 36422, Start Num: 25  
Candidate Starts for Malec\_52:  
(Start: 25 @36625 has 141 MA's), (27, 36607), (36, 36523), (40, 36472),

Gene: Maminiaina\_51 Start: 35668, Stop: 35477, Start Num: 25  
Candidate Starts for Maminiaina\_51:  
(Start: 25 @35668 has 141 MA's),

Gene: MegTheThird\_51 Start: 35525, Stop: 35322, Start Num: 25  
Candidate Starts for MegTheThird\_51:  
(Start: 25 @35525 has 141 MA's), (31, 35465), (34, 35432),

Gene: MiculUcigas\_52 Start: 35857, Stop: 35654, Start Num: 25  
Candidate Starts for MiculUcigas\_52:  
(Start: 25 @35857 has 141 MA's), (36, 35755), (40, 35704), (45, 35665),

Gene: Miko\_49 Start: 36066, Stop: 35863, Start Num: 25  
Candidate Starts for Miko\_49:  
(Start: 25 @36066 has 141 MA's), (34, 35973), (43, 35880),

Gene: MinecraftSteve\_58 Start: 35169, Stop: 34978, Start Num: 25  
Candidate Starts for MinecraftSteve\_58:  
(Start: 25 @35169 has 141 MA's), (39, 35046),

Gene: Minispark\_51 Start: 35436, Stop: 35233, Start Num: 25  
Candidate Starts for Minispark\_51:  
(Start: 25 @35436 has 141 MA's), (33, 35346),

Gene: MissWhite\_51 Start: 34431, Stop: 34228, Start Num: 25  
Candidate Starts for MissWhite\_51:  
(Start: 25 @34431 has 141 MA's), (34, 34338), (39, 34296), (43, 34245),

Gene: Myxus\_52 Start: 35873, Stop: 35670, Start Num: 25  
Candidate Starts for Myxus\_52:  
(Start: 25 @35873 has 141 MA's), (36, 35771), (38, 35750),

Gene: NaSiaTalie\_52 Start: 35951, Stop: 35748, Start Num: 25  
Candidate Starts for NaSiaTalie\_52:  
(Start: 25 @35951 has 141 MA's), (36, 35849), (40, 35798), (45, 35759),

Gene: Naji\_54 Start: 35759, Stop: 35562, Start Num: 25  
Candidate Starts for Naji\_54:  
(Start: 25 @35759 has 141 MA's),

Gene: Nebulosus\_56 Start: 34879, Stop: 34688, Start Num: 24  
Candidate Starts for Nebulosus\_56:  
(Start: 24 @34879 has 8 MA's), (39, 34756),

Gene: Nedarya\_52 Start: 34325, Stop: 34134, Start Num: 25  
Candidate Starts for Nedarya\_52:  
(Start: 25 @34325 has 141 MA's), (39, 34202),

Gene: NicoleTera\_51 Start: 36222, Stop: 36016, Start Num: 25  
Candidate Starts for NicoleTera\_51:  
(19, 36282), (Start: 25 @36222 has 141 MA's), (34, 36129),

Gene: NothingSpecial\_50 Start: 36473, Stop: 36276, Start Num: 25  
Candidate Starts for NothingSpecial\_50:  
(Start: 25 @36473 has 141 MA's), (32, 36404), (37, 36368),

Gene: Onglai\_50 Start: 34214, Stop: 34011, Start Num: 25  
Candidate Starts for Onglai\_50:  
(Start: 25 @34214 has 141 MA's), (36, 34112), (38, 34091),

Gene: Oofda\_57 Start: 35001, Stop: 34810, Start Num: 25  
Candidate Starts for Oofda\_57:  
(Start: 25 @35001 has 141 MA's), (39, 34878),

Gene: PackMan\_51 Start: 35873, Stop: 35670, Start Num: 25  
Candidate Starts for PackMan\_51:  
(Start: 25 @35873 has 141 MA's), (36, 35771), (38, 35750),

Gene: PainterBoy\_53 Start: 35664, Stop: 35470, Start Num: 25  
Candidate Starts for PainterBoy\_53:  
(17, 35733), (Start: 25 @35664 has 141 MA's), (29, 35640),

Gene: Phaded\_53 Start: 37110, Stop: 36913, Start Num: 25  
Candidate Starts for Phaded\_53:  
(Start: 25 @37110 has 141 MA's), (37, 37005),

Gene: Phaeder\_52 Start: 35873, Stop: 35670, Start Num: 25  
Candidate Starts for Phaeder\_52:  
(Start: 25 @35873 has 141 MA's), (36, 35771), (38, 35750),

Gene: Pharaoh\_47 Start: 35694, Stop: 35491, Start Num: 25  
Candidate Starts for Pharaoh\_47:  
(Start: 25 @35694 has 141 MA's), (36, 35592),

Gene: Phonnegut\_52 Start: 35970, Stop: 35767, Start Num: 25

Candidate Starts for Phonnegut\_52:

(Start: 25 @35970 has 141 MA's), (36, 35868), (38, 35847),

Gene: Pioneer\_52 Start: 35970, Stop: 35767, Start Num: 25

Candidate Starts for Pioneer\_52:

(Start: 25 @35970 has 141 MA's), (36, 35868), (38, 35847),

Gene: Piro94\_52 Start: 36298, Stop: 36095, Start Num: 25

Candidate Starts for Piro94\_52:

(Start: 25 @36298 has 141 MA's), (36, 36196), (40, 36145), (45, 36106),

Gene: Pomar16\_54 Start: 35799, Stop: 35602, Start Num: 25

Candidate Starts for Pomar16\_54:

(Start: 25 @35799 has 141 MA's),

Gene: Power\_51 Start: 35935, Stop: 35732, Start Num: 20

Candidate Starts for Power\_51:

(9, 36160), (13, 36121), (Start: 20 @35935 has 16 MA's), (34, 35842), (43, 35749),

Gene: Priya\_52 Start: 35940, Stop: 35737, Start Num: 25

Candidate Starts for Priya\_52:

(Start: 25 @35940 has 141 MA's), (36, 35838), (38, 35817),

Gene: Prudy\_51 Start: 36673, Stop: 36467, Start Num: 25

Candidate Starts for Prudy\_51:

(8, 36919), (Start: 25 @36673 has 141 MA's), (34, 36580), (37, 36568),

Gene: Pukovnik\_51 Start: 36758, Stop: 36555, Start Num: 25

Candidate Starts for Pukovnik\_51:

(Start: 25 @36758 has 141 MA's), (34, 36665),

Gene: Qobbit\_52 Start: 35902, Stop: 35699, Start Num: 25

Candidate Starts for Qobbit\_52:

(Start: 25 @35902 has 141 MA's), (36, 35800), (38, 35779),

Gene: QueenB2\_51 Start: 35913, Stop: 35710, Start Num: 25

Candidate Starts for QueenB2\_51:

(Start: 25 @35913 has 141 MA's), (37, 35808),

Gene: QueenBeesly\_52 Start: 35882, Stop: 35679, Start Num: 20

Candidate Starts for QueenBeesly\_52:

(9, 36107), (13, 36068), (Start: 20 @35882 has 16 MA's), (34, 35789), (43, 35696),

Gene: Quokka\_50 Start: 34916, Stop: 34713, Start Num: 25

Candidate Starts for Quokka\_50:

(19, 34952), (Start: 25 @34916 has 141 MA's), (37, 34811),

Gene: Rachaly\_51 Start: 36211, Stop: 36008, Start Num: 25

Candidate Starts for Rachaly\_51:

(Start: 25 @36211 has 141 MA's), (34, 36118), (43, 36025),

Gene: Rahalelujah\_52 Start: 35451, Stop: 35248, Start Num: 25

Candidate Starts for Rahalelujah\_52:

(Start: 25 @35451 has 141 MA's), (33, 35361),

Gene: Ravana\_59 Start: 35693, Stop: 35502, Start Num: 25

Candidate Starts for Ravana\_59:

(16, 35846), (Start: 25 @35693 has 141 MA's), (39, 35570),

Gene: ReMo\_56 Start: 34880, Stop: 34689, Start Num: 24

Candidate Starts for ReMo\_56:

(Start: 24 @34880 has 8 MA's), (39, 34757),

Gene: RedRock\_54 Start: 37127, Stop: 36924, Start Num: 25

Candidate Starts for RedRock\_54:

(14, 37322), (Start: 25 @37127 has 141 MA's), (34, 37034), (39, 36992), (43, 36941),

Gene: Remus\_57 Start: 34790, Stop: 34599, Start Num: 25

Candidate Starts for Remus\_57:

(Start: 25 @34790 has 141 MA's), (39, 34667),

Gene: Retro23\_53 Start: 36313, Stop: 36110, Start Num: 20

Candidate Starts for Retro23\_53:

(Start: 20 @36313 has 16 MA's), (34, 36220),

Gene: Rosalind\_56 Start: 35088, Stop: 34897, Start Num: 25

Candidate Starts for Rosalind\_56:

(Start: 25 @35088 has 141 MA's), (39, 34965),

Gene: RyeScarlet\_53 Start: 35945, Stop: 35742, Start Num: 25

Candidate Starts for RyeScarlet\_53:

(Start: 25 @35945 has 141 MA's), (36, 35843), (38, 35822),

Gene: Sachima\_49 Start: 35855, Stop: 35652, Start Num: 25

Candidate Starts for Sachima\_49:

(Start: 25 @35855 has 141 MA's), (36, 35753), (38, 35732),

Gene: Scherzo\_52 Start: 36159, Stop: 35956, Start Num: 25

Candidate Starts for Scherzo\_52:

(Start: 25 @36159 has 141 MA's), (36, 36057), (38, 36036),

Gene: SemperFi\_53 Start: 36150, Stop: 35947, Start Num: 20

Candidate Starts for SemperFi\_53:

(9, 36375), (13, 36336), (Start: 20 @36150 has 16 MA's), (34, 36057), (43, 35964),

Gene: Serenity\_52 Start: 35106, Stop: 34903, Start Num: 25

Candidate Starts for Serenity\_52:

(19, 35142), (Start: 25 @35106 has 141 MA's), (37, 35001),

Gene: ShayRa\_58 Start: 35132, Stop: 34941, Start Num: 25

Candidate Starts for ShayRa\_58:

(Start: 25 @35132 has 141 MA's), (39, 35009),

Gene: Sheen\_39 Start: 30417, Stop: 30229, Start Num: 25

Candidate Starts for Sheen\_39:

(Start: 25 @30417 has 141 MA's), (39, 30294), (41, 30270), (43, 30243), (44, 30240),

Gene: Sknot\_52 Start: 35954, Stop: 35751, Start Num: 25  
Candidate Starts for Sknot\_52:  
(Start: 25 @35954 has 141 MA's), (36, 35852), (40, 35801), (45, 35762),

Gene: Smeagan\_55 Start: 36608, Stop: 36405, Start Num: 25  
Candidate Starts for Smeagan\_55:  
(9, 36842), (10, 36839), (13, 36803), (Start: 25 @36608 has 141 MA's), (32, 36539), (34, 36515),

Gene: SnapTap\_52 Start: 35961, Stop: 35758, Start Num: 20  
Candidate Starts for SnapTap\_52:  
(9, 36186), (13, 36147), (Start: 20 @35961 has 16 MA's), (34, 35868), (43, 35775),

Gene: SororFago\_54 Start: 36861, Stop: 36658, Start Num: 25  
Candidate Starts for SororFago\_54:  
(Start: 25 @36861 has 141 MA's), (28, 36840),

Gene: Soups\_58 Start: 35371, Stop: 35180, Start Num: 25  
Candidate Starts for Soups\_58:  
(Start: 25 @35371 has 141 MA's), (39, 35248),

Gene: Spouty\_52 Start: 35939, Stop: 35736, Start Num: 25  
Candidate Starts for Spouty\_52:  
(Start: 25 @35939 has 141 MA's), (36, 35837), (38, 35816),

Gene: StarStuff\_54 Start: 35761, Stop: 35564, Start Num: 25  
Candidate Starts for StarStuff\_54:  
(Start: 25 @35761 has 141 MA's),

Gene: Steamy\_48 Start: 35429, Stop: 35226, Start Num: 25  
Candidate Starts for Steamy\_48:  
(Start: 25 @35429 has 141 MA's),

Gene: Stellammi\_126 Start: 60535, Stop: 60750, Start Num: 23  
Candidate Starts for Stellammi\_126:  
(18, 60499), (Start: 23 @60535 has 1 MA's), (26, 60547), (35, 60646), (39, 60685),

Gene: Strosahl\_57 Start: 34790, Stop: 34599, Start Num: 25  
Candidate Starts for Strosahl\_57:  
(Start: 25 @34790 has 141 MA's), (39, 34667),

Gene: Sunhee\_55 Start: 35282, Stop: 35079, Start Num: 25  
Candidate Starts for Sunhee\_55:  
(Start: 25 @35282 has 141 MA's), (27, 35264), (29, 35258),

Gene: SweetiePie\_52 Start: 36093, Stop: 35890, Start Num: 20  
Candidate Starts for SweetiePie\_52:  
(9, 36318), (13, 36279), (Start: 20 @36093 has 16 MA's), (34, 36000), (43, 35907),

Gene: Switzerland\_57 Start: 35271, Stop: 35080, Start Num: 25  
Candidate Starts for Switzerland\_57:  
(Start: 25 @35271 has 141 MA's), (39, 35148),

Gene: TarsusIV\_51 Start: 35933, Stop: 35730, Start Num: 25  
Candidate Starts for TarsusIV\_51:  
(Start: 25 @35933 has 141 MA's), (37, 35828),

Gene: Terrific\_55 Start: 36308, Stop: 36105, Start Num: 25  
Candidate Starts for Terrific\_55:  
(Start: 25 @36308 has 141 MA's), (36, 36206), (40, 36155), (45, 36116),

Gene: Timshel\_38 Start: 30511, Stop: 30323, Start Num: 25  
Candidate Starts for Timshel\_38:  
(Start: 25 @30511 has 141 MA's), (39, 30388), (43, 30337),

Gene: TopsytheTRex\_48 Start: 35176, Stop: 34973, Start Num: 25  
Candidate Starts for TopsytheTRex\_48:  
(19, 35212), (Start: 25 @35176 has 141 MA's), (37, 35071),

Gene: Toaka\_52 Start: 35764, Stop: 35561, Start Num: 25  
Candidate Starts for Toaka\_52:  
(Start: 25 @35764 has 141 MA's), (36, 35662), (38, 35641), (39, 35629),

Gene: Tomathan\_54 Start: 35758, Stop: 35561, Start Num: 25  
Candidate Starts for Tomathan\_54:  
(Start: 25 @35758 has 141 MA's),

Gene: Toro\_39 Start: 30344, Stop: 30156, Start Num: 25  
Candidate Starts for Toro\_39:  
(Start: 25 @30344 has 141 MA's), (39, 30221), (41, 30197), (43, 30170), (44, 30167),

Gene: Travvers\_54 Start: 35758, Stop: 35561, Start Num: 25  
Candidate Starts for Travvers\_54:  
(Start: 25 @35758 has 141 MA's),

Gene: Tristan\_51 Start: 36944, Stop: 36747, Start Num: 25  
Candidate Starts for Tristan\_51:  
(Start: 25 @36944 has 141 MA's), (37, 36839),

Gene: Trixie\_50 Start: 36033, Stop: 35842, Start Num: 20  
Candidate Starts for Trixie\_50:  
(19, 36060), (Start: 20 @36033 has 16 MA's), (34, 35940), (36, 35931), (42, 35868),

Gene: Trooper\_53 Start: 36313, Stop: 36110, Start Num: 25  
Candidate Starts for Trooper\_53:  
(Start: 25 @36313 has 141 MA's), (34, 36220),

Gene: Tubs\_52 Start: 35873, Stop: 35670, Start Num: 25  
Candidate Starts for Tubs\_52:  
(Start: 25 @35873 has 141 MA's), (36, 35771), (38, 35750),

Gene: Turbido\_53 Start: 36342, Stop: 36139, Start Num: 25  
Candidate Starts for Turbido\_53:  
(9, 36576), (10, 36573), (13, 36537), (Start: 25 @36342 has 141 MA's), (34, 36249),

Gene: Ugenie5\_49 Start: 36158, Stop: 35955, Start Num: 25

Candidate Starts for Ugenie5\_49:  
(Start: 25 @36158 has 141 MA's), (36, 36056), (38, 36035),

Gene: Updawg\_53 Start: 36195, Stop: 35992, Start Num: 25  
Candidate Starts for Updawg\_53:  
(Start: 25 @36195 has 141 MA's), (36, 36093), (40, 36042), (45, 36003),

Gene: VA6\_53 Start: 36330, Stop: 36127, Start Num: 25  
Candidate Starts for VA6\_53:  
(Start: 25 @36330 has 141 MA's), (36, 36228), (40, 36177),

Gene: VC3\_55 Start: 36177, Stop: 35980, Start Num: 25  
Candidate Starts for VC3\_55:  
(Start: 25 @36177 has 141 MA's),

Gene: Vanisoa\_52 Start: 36794, Stop: 36591, Start Num: 25  
Candidate Starts for Vanisoa\_52:  
(Start: 25 @36794 has 141 MA's), (33, 36704), (43, 36608),

Gene: Waits\_57 Start: 34992, Stop: 34801, Start Num: 25  
Candidate Starts for Waits\_57:  
(Start: 25 @34992 has 141 MA's), (39, 34869),

Gene: Warrior24\_59 Start: 35456, Stop: 35265, Start Num: 25  
Candidate Starts for Warrior24\_59:  
(Start: 25 @35456 has 141 MA's), (39, 35333),

Gene: WeiHuaDA\_54 Start: 36838, Stop: 36647, Start Num: 20  
Candidate Starts for WeiHuaDA\_54:  
(19, 36865), (Start: 20 @36838 has 16 MA's), (34, 36745), (42, 36673), (43, 36664),

Gene: Whabigail7\_53 Start: 36327, Stop: 36124, Start Num: 25  
Candidate Starts for Whabigail7\_53:  
(9, 36561), (10, 36558), (13, 36522), (Start: 25 @36327 has 141 MA's), (34, 36234),

Gene: WideWale\_53 Start: 36195, Stop: 35992, Start Num: 25  
Candidate Starts for WideWale\_53:  
(Start: 25 @36195 has 141 MA's), (36, 36093), (40, 36042), (45, 36003),

Gene: WorldCup\_51 Start: 35445, Stop: 35242, Start Num: 25  
Candidate Starts for WorldCup\_51:  
(Start: 25 @35445 has 141 MA's), (33, 35355),

Gene: XianYue\_51 Start: 35699, Stop: 35502, Start Num: 25  
Candidate Starts for XianYue\_51:  
(Start: 25 @35699 has 141 MA's), (34, 35606), (37, 35594),

Gene: Yecey3\_53 Start: 35450, Stop: 35247, Start Num: 25  
Candidate Starts for Yecey3\_53:  
(Start: 25 @35450 has 141 MA's), (31, 35390), (34, 35357), (39, 35315),

Gene: Zimmer\_49 Start: 36619, Stop: 36413, Start Num: 25  
Candidate Starts for Zimmer\_49:

(Start: 25 @36619 has 141 MA's), (34, 36526),