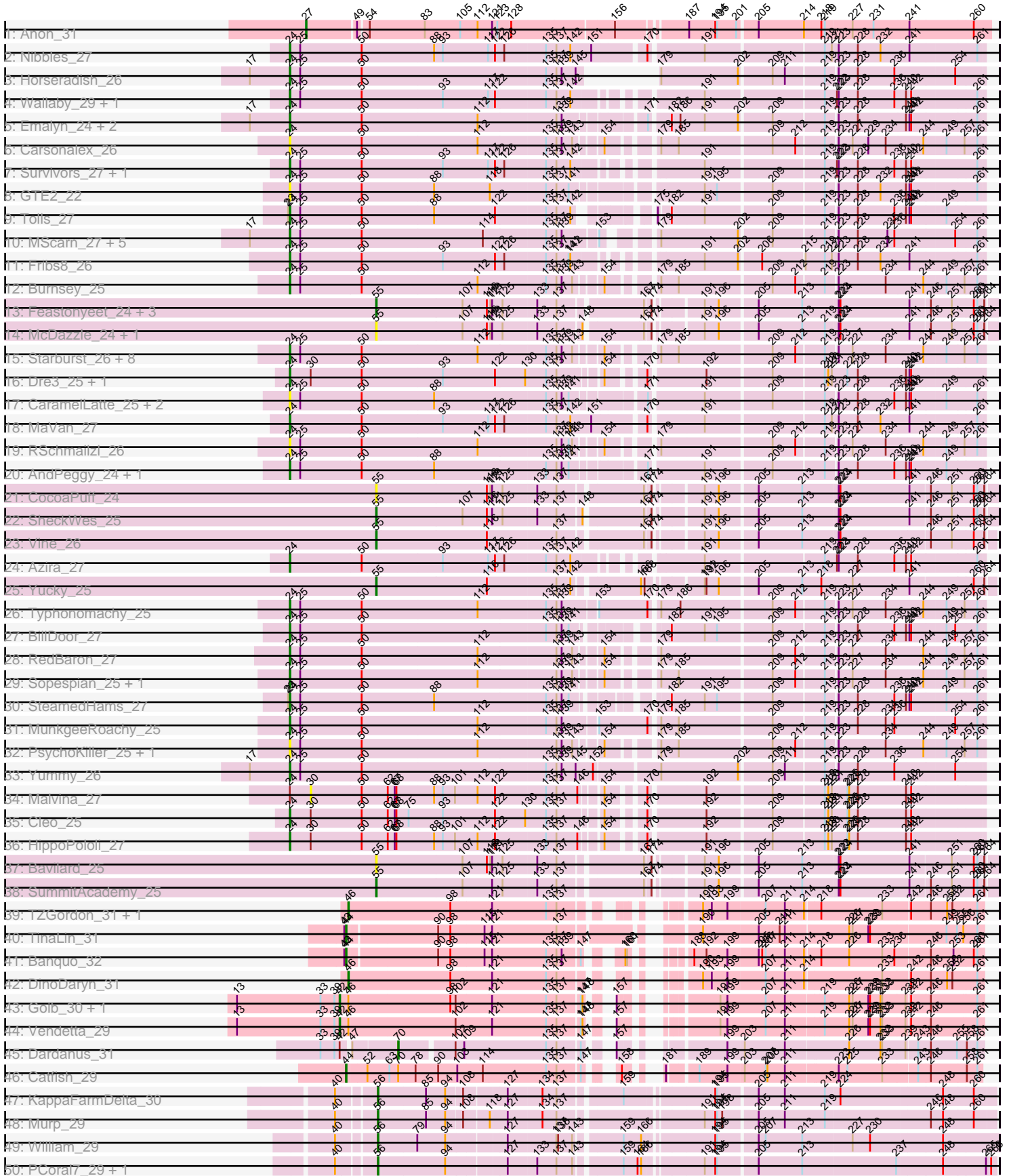
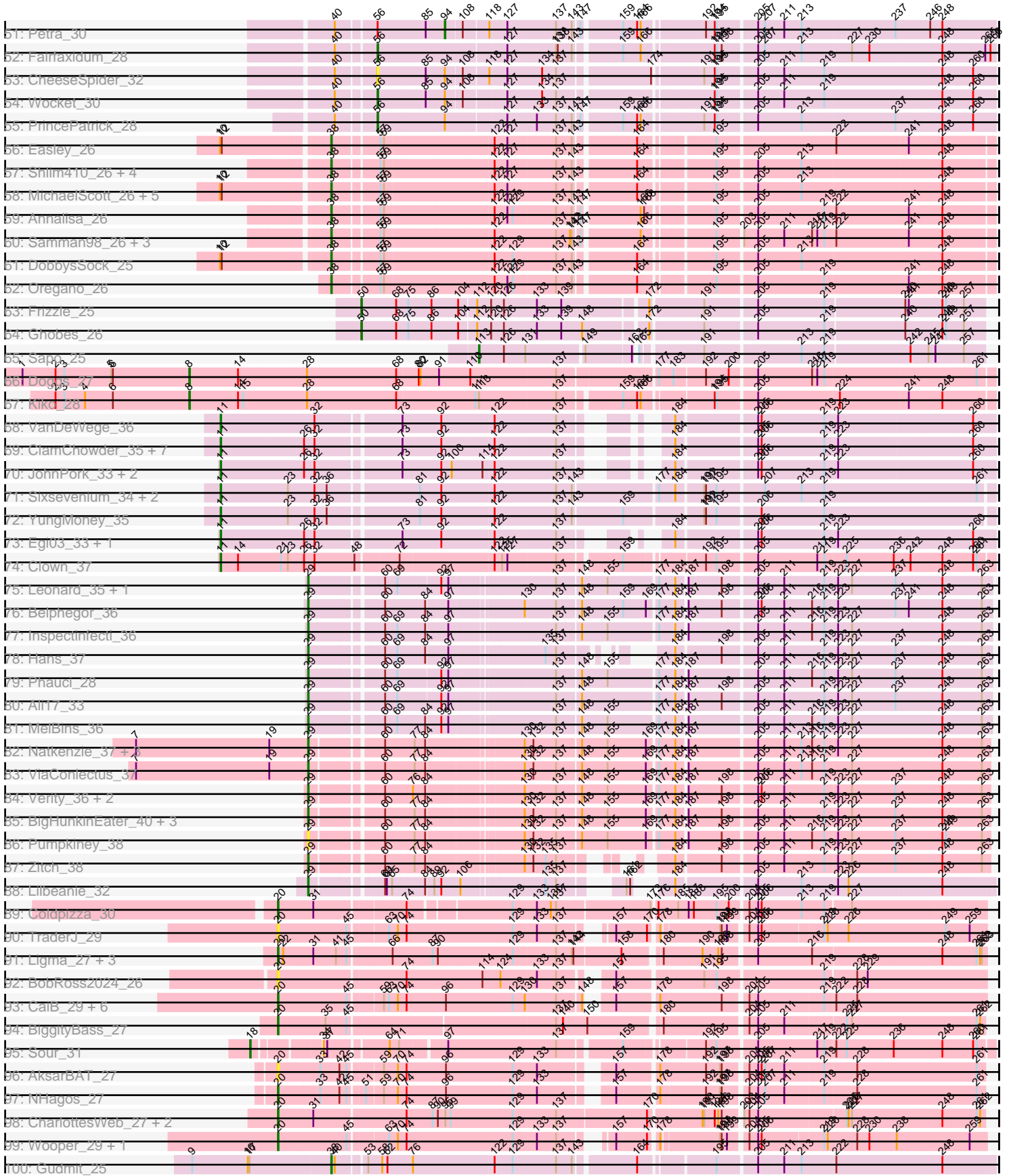


Pham 304746



Pham 304746



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 304746 Report

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

Pham number 304746 has 175 members, 33 are drafts.

Phages represented in each track:

- Track 1 : Anon\_31
- Track 2 : Nibbles\_27
- Track 3 : Horseradish\_26
- Track 4 : Wallaby\_29, Wolfwood\_27
- Track 5 : Emalyn\_24, Amok\_24, AikoCarson\_24
- Track 6 : Carsonalex\_26
- Track 7 : Survivors\_27, Zareef\_27
- Track 8 : GTE2\_22
- Track 9 : Tolls\_27
- Track 10 : MScarn\_27, Blondies\_26, Biskit\_26, Buttrmlkdreams\_25, SketchMex\_24, Troje\_25
- Track 11 : Fribs8\_26
- Track 12 : Burnsey\_25
- Track 13 : Feastonyeet\_24, PotPie\_25, Balloona\_24, BigChungus\_24
- Track 14 : McDazzle\_24, ElJefes\_24
- Track 15 : Starburst\_26, Axym\_25, RADical\_26, Agatha\_25, GoldHunter\_26, Cozz\_25, Socotra\_26, Bubble\_25, Quasar\_25
- Track 16 : Dre3\_25, Gibbous\_25
- Track 17 : CaramelLatte\_25, CanesSauce\_25, ChocoMunchkin\_25
- Track 18 : MaVan\_27
- Track 19 : RSchmailzl\_26
- Track 20 : AndPeggy\_24, Yarn\_24
- Track 21 : CocoaPuff\_24
- Track 22 : SheckWes\_25
- Track 23 : Vine\_26
- Track 24 : Azira\_27
- Track 25 : Yucky\_25
- Track 26 : Typhonomachy\_25
- Track 27 : BillDoor\_27
- Track 28 : RedBaron\_27
- Track 29 : Sopespian\_25, Nina\_26
- Track 30 : SteamedHams\_27
- Track 31 : MunkgeeRoachy\_25
- Track 32 : PsychoKiller\_25, Elliott\_25
- Track 33 : Yummy\_26
- Track 34 : Malvina\_27
- Track 35 : Cleo\_25

- Track 36 : HippoPololi\_27
- Track 37 : Bavidard\_25
- Track 38 : SummitAcademy\_25
- Track 39 : TZGordon\_31, Huffy\_31
- Track 40 : TinaLin\_31
- Track 41 : Banquo\_32
- Track 42 : DinoDaryn\_31
- Track 43 : Goib\_30, Splinter\_29
- Track 44 : Vendetta\_29
- Track 45 : Dardanus\_31
- Track 46 : Catfish\_29
- Track 47 : KappaFarmDelta\_30
- Track 48 : Murp\_29
- Track 49 : William\_29
- Track 50 : PCoral7\_29, Toast\_29
- Track 51 : Petra\_30
- Track 52 : Fairfaxidum\_28
- Track 53 : CheeseSpider\_32
- Track 54 : Wocket\_30
- Track 55 : PrincePatrick\_28
- Track 56 : Easley\_26
- Track 57 : Shlim410\_26, Adora\_26, Howe\_26, Hortense\_26, Twinkle\_26
- Track 58 : MichaelScott\_26, Dolores\_26, Rizz\_29, WinkNick\_26, Mcklovin\_26, Clark\_26
- Track 59 : Annalisa\_26
- Track 60 : Samman98\_26, Dorito\_25, Sekhmet\_26, PhriskyACE\_25
- Track 61 : DobbysSock\_25
- Track 62 : Oregano\_26
- Track 63 : Frizzle\_25
- Track 64 : Ghobes\_26
- Track 65 : Sapo\_25
- Track 66 : Doggs\_27
- Track 67 : Kiko\_28
- Track 68 : VanDeWege\_36
- Track 69 : ClamChowder\_35, Danyall\_35, Fugax\_35, PinkCoffee\_35, Barb\_35, CoveyB\_35, Twister6\_35, Arri\_36
- Track 70 : JohnPork\_33, Portcullis\_33, Shinji\_33
- Track 71 : Sixsevenium\_34, Bakery\_34, SharkTale\_33
- Track 72 : YungMoney\_35
- Track 73 : Egi03\_33, RogerDodger\_36
- Track 74 : Clown\_37
- Track 75 : Leonard\_35, Phinally\_35
- Track 76 : Belphegor\_36
- Track 77 : Inspectinfecti\_36
- Track 78 : Hans\_37
- Track 79 : Phauci\_28
- Track 80 : Ali17\_33
- Track 81 : MelBins\_36
- Track 82 : Natkenzie\_37, Abblin\_37, Sampson\_37, Scioto\_37
- Track 83 : ViaConlectus\_37
- Track 84 : Verity\_36, Delrey21\_36, DoctorFroggo\_36
- Track 85 : BigHunkinEater\_40, APunk\_38, Tardus\_38, Zipp\_36
- Track 86 : Pumpkiney\_38

- Track 87 : Zitch\_38
- Track 88 : Lilbeanie\_32
- Track 89 : Coldpizza\_30
- Track 90 : TraderJ\_29
- Track 91 : Ligma\_27, Fresco\_27, Axumite\_27, Shatter\_27
- Track 92 : BobRoss2024\_26
- Track 93 : CaiB\_29, Blackpen\_29, AnarQue\_29, CloverMinnie\_29, MossRose\_29, FelixTres\_29, MakoManhole\_29
- Track 94 : BiggityBass\_27
- Track 95 : Sour\_31
- Track 96 : AksarBAT\_27
- Track 97 : NHagos\_27
- Track 98 : CharlottesWeb\_27, Mariokart\_27, JellyBelly\_27
- Track 99 : Wooper\_29, Yeshua\_29
- Track 100 : Gudmit\_25

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

The start number called the most often in the published annotations is 24, it was called in 37 of the 142 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha\_25, AikoCarson\_24, Amok\_24, AndPeggy\_24, Axym\_25, Azira\_27, BillDoor\_27, Biskit\_26, Blondies\_26, Bubble\_25, Burnsey\_25, Buttrmlkdreams\_25, CanesSauce\_25, CaramelLatte\_25, Carsonalex\_26, ChocoMunchkin\_25, Cleo\_25, Cozz\_25, Dre3\_25, Elliott\_25, Emalyn\_24, Fribs8\_26, GTE2\_22, Gibbous\_25, GoldHunter\_26, HippoPololi\_27, Horseradish\_26, MScarn\_27, MaVan\_27, MunkgeeRoachy\_25, Nibbles\_27, Nina\_26, PsychoKiller\_25, Quasar\_25, RADical\_26, RSchmailzl\_26, RedBaron\_27, SketchMex\_24, Socotra\_26, Sopespian\_25, Starburst\_26, SteamedHams\_27, Survivors\_27, Tolls\_27, Troje\_25, Typhonomachy\_25, Wallaby\_29, Wolfwood\_27, Yarn\_24, Yummy\_26, Zareef\_27,

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

- Malvina\_27,

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

- APunk\_38, Abblin\_37, Adora\_26, AksarBAT\_27, Ali17\_33, AnarQue\_29, Annalisa\_26, Anon\_31, Arri\_36, Axumite\_27, Bakery\_34, Balloona\_24, Banquo\_32, Barb\_35, Bavidard\_25, Belphegor\_36, BigChungus\_24, BigHunkinEater\_40, BiggityBass\_27, Blackpen\_29, BobRoss2024\_26, CaiB\_29, Catfish\_29, CharlottesWeb\_27, CheeseSpider\_32, ClamChowder\_35, Clark\_26, CloverMinnie\_29, Clown\_37, CocoaPuff\_24, Coldpizza\_30, CoveyB\_35, Danyall\_35, Dardanus\_31, Delrey21\_36, DinoDaryn\_31, DobbysSock\_25, DoctorFroggo\_36, Doggs\_27, Dolores\_26, Dorito\_25, Easley\_26, Egi03\_33, ElJefes\_24, Fairfaxidum\_28, Feastonyeet\_24, FelixTres\_29, Fresco\_27, Frizzle\_25, Fugax\_35, Ghobes\_26, Goib\_30, Gudmit\_25, Hans\_37, Hortense\_26, Howe\_26, Huffy\_31, Inspectinfecti\_36, JellyBelly\_27, JohnPork\_33, KappaFarmDelta\_30, Kiko\_28, Leonard\_35, Ligma\_27, Lilbeanie\_32, MakoManhole\_29, Mariokart\_27, McDazzle\_24, Mcklovin\_26, MelBins\_36, MichaelScott\_26, MossRose\_29, Murp\_29, NHagos\_27, Natkenzie\_37, Oregano\_26, PCoral7\_29, Petra\_30, Phauci\_28,

Phinally\_35, PhriskyACE\_25, PinkCoffee\_35, Portcullis\_33, PotPie\_25, PrincePatrick\_28, Pumpkiney\_38, Rizz\_29, RogerDodger\_36, Samman98\_26, Sampson\_37, Sapo\_25, Scioto\_37, Sekhmet\_26, SharkTale\_33, Shatter\_27, SheckWes\_25, Shinji\_33, Shlim410\_26, Sixsevenium\_34, Sour\_31, Splinter\_29, SummitAcademy\_25, TZGordon\_31, Tardus\_38, TinaLin\_31, Toast\_29, TraderJ\_29, Twinkle\_26, Twister6\_35, VanDeWege\_36, Vendetta\_29, Verity\_36, ViaConlectus\_37, Vine\_26, William\_29, WinkNick\_26, Wocket\_30, Wooper\_29, Yeshua\_29, Yucky\_25, YungMoney\_35, Zipp\_36, Zitch\_38,

### Summary by start number:

#### Start 8:

- Found in 2 of 175 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Doggs\_27 (DB), Kiko\_28 (DB),

#### Start 11:

- Found in 19 of 175 ( 10.9% ) of genes in pham
- Manual Annotations of this start: 15 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arri\_36 (DC1), Bakery\_34 (DC1), Barb\_35 (DC1), ClamChowder\_35 (DC1), Clown\_37 (DC2), CoveyB\_35 (DC1), Danyall\_35 (DC1), Egi03\_33 (DC1), Fugax\_35 (DC1), JohnPork\_33 (DC1), PinkCoffee\_35 (DC1), Portcullis\_33 (DC1), RogerDodger\_36 (DC1), SharkTale\_33 (DC1), Shinji\_33 (DC1), Sixsevenium\_34 (DC1), Twister6\_35 (DC1), VanDeWege\_36 (DC1), YungMoney\_35 (DC1),

#### Start 18:

- Found in 1 of 175 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sour\_31 (DR),

#### Start 20:

- Found in 22 of 175 ( 12.6% ) of genes in pham
- Manual Annotations of this start: 16 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AksarBAT\_27 (DR), AnarQue\_29 (DR), Axumite\_27 (DR), BiggityBass\_27 (DR), Blackpen\_29 (DR), BobRoss2024\_26 (DR), CaiB\_29 (DR), CharlottesWeb\_27 (DR), CloverMinnie\_29 (DR), Coldpizza\_30 (DR), FelixTres\_29 (DR), Fresco\_27 (DR), JellyBelly\_27 (DR), Ligma\_27 (DR), MakoManhole\_29 (DR), Mariokart\_27 (DR), MossRose\_29 (DR), NHagos\_27 (DR), Shatter\_27 (DR), TraderJ\_29 (DR), Wooper\_29 (DR), Yeshua\_29 (DR),

#### Start 24:

- Found in 52 of 175 ( 29.7% ) of genes in pham
- Manual Annotations of this start: 37 of 142
- Called 98.1% of time when present
- Phage (with cluster) where this start called: Agatha\_25 (CT), AikoCarson\_24 (CT), Amok\_24 (CT), AndPeggy\_24 (CT), Axym\_25 (CT), Azira\_27 (CT), BillDoor\_27 (CT), Biskit\_26 (CT), Blondies\_26 (CT), Bubble\_25 (CT), Burnsey\_25 (CT), Buttrmlkdreams\_25 (CT), CanesSauce\_25 (CT), CaramellLatte\_25 (CT),

Carsonalex\_26 (CT), ChocoMunchkin\_25 (CT), Cleo\_25 (CT), Cozz\_25 (CT), Dre3\_25 (CT), Elliott\_25 (CT), Emalyn\_24 (CT), Fribs8\_26 (CT), GTE2\_22 (CT), Gibbous\_25 (CT), GoldHunter\_26 (CT), HippoPololi\_27 (CT), Horseradish\_26 (CT), MScarn\_27 (CT), MaVan\_27 (CT), MunkgeeRoachy\_25 (CT), Nibbles\_27 (CT), Nina\_26 (CT), PsychoKiller\_25 (CT), Quasar\_25 (CT), RADical\_26 (CT), RSchmailzl\_26 (CT), RedBaron\_27 (CT), SketchMex\_24 (CT), Socotra\_26 (CT), Sopespian\_25 (CT), Starburst\_26 (CT), SteamedHams\_27 (CT), Survivors\_27 (CT), Tolls\_27 (CT), Troje\_25 (CT), Typhonmarchy\_25 (CT), Wallaby\_29 (CT), Wolfwood\_27 (CT), Yarn\_24 (CT), Yummy\_26 (CT), Zareef\_27 (CT),

#### Start 27:

- Found in 1 of 175 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anon\_31 (A15),

#### Start 29:

- Found in 23 of 175 ( 13.1% ) of genes in pham
- Manual Annotations of this start: 22 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk\_38 (DE4), Abblin\_37 (DE4), Ali17\_33 (DE2), Belphegor\_36 (DE2), BigHunkinEater\_40 (DE4), Delrey21\_36 (DE4), DoctorFroggo\_36 (DE4), Hans\_37 (DE2), Inspectinfecti\_36 (DE2), Leonard\_35 (DE2), Lilbeanie\_32 (DE5), MelBins\_36 (DE2), Natkenzie\_37 (DE4), Phauci\_28 (DE2), Phinally\_35 (DE2), Pumpkiney\_38 (DE4), Sampson\_37 (DE4), Scioto\_37 (DE4), Tardus\_38 (DE4), Verity\_36 (DE4), ViaConlectus\_37 (DE4), Zipp\_36 (DE4), Zitch\_38 (DE4),

#### Start 30:

- Found in 5 of 175 ( 2.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Malvina\_27 (CT),

#### Start 38:

- Found in 20 of 175 ( 11.4% ) of genes in pham
- Manual Annotations of this start: 19 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adora\_26 (CZ4), Annalisa\_26 (CZ4), Clark\_26 (CZ4), DobbysSock\_25 (CZ4), Dolores\_26 (CZ4), Dorito\_25 (CZ4), Easley\_26 (CZ4), Gudmit\_25 (singleton), Hortense\_26 (CZ4), Howe\_26 (CZ4), Mcklovin\_26 (CZ4), MichaelScott\_26 (CZ4), Oregano\_26 (CZ4), PhriskyACE\_25 (CZ4), Rizz\_29 (CZ4), Samman98\_26 (CZ4), Sekhmet\_26 (CZ4), Shlim410\_26 (CZ4), Twinkle\_26 (CZ4), WinkNick\_26 (CZ4),

#### Start 42:

- Found in 6 of 175 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 3 of 142
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Goib\_30 (CU1), Splinter\_29 (CU1), Vendetta\_29 (CU1),

#### Start 44:

- Found in 3 of 175 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 3 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Banquo\_32 (CU1), Catfish\_29 (CU5), TinaLin\_31 (CU1),

#### Start 46:

- Found in 6 of 175 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 3 of 142
- Called 50.0% of time when present
- Phage (with cluster) where this start called: DinoDaryn\_31 (CU1), Huffy\_31 (CU1), TZGordon\_31 (CU1),

#### Start 50:

- Found in 54 of 175 ( 30.9% ) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 3.7% of time when present
- Phage (with cluster) where this start called: Frizzle\_25 (DA), Ghobes\_26 (DA),

#### Start 55:

- Found in 12 of 175 ( 6.9% ) of genes in pham
- Manual Annotations of this start: 7 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Balloona\_24 (CT), Bavidard\_25 (CT), BigChungus\_24 (CT), CocoaPuff\_24 (CT), ElJefes\_24 (CT), Feastonyeet\_24 (CT), McDazzle\_24 (CT), PotPie\_25 (CT), SheckWes\_25 (CT), SummitAcademy\_25 (CT), Vine\_26 (CT), Yucky\_25 (CT),

#### Start 56:

- Found in 10 of 175 ( 5.7% ) of genes in pham
- Manual Annotations of this start: 8 of 142
- Called 90.0% of time when present
- Phage (with cluster) where this start called: CheeseSpider\_32 (CV), Fairfaxidum\_28 (CV), KappaFarmDelta\_30 (CV), Murp\_29 (CV), PCoral7\_29 (CV), PrincePatrick\_28 (CV), Toast\_29 (CV), William\_29 (CV), Wocket\_30 (CV),

#### Start 70:

- Found in 14 of 175 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Dardanus\_31 (CU3),

#### Start 94:

- Found in 9 of 175 ( 5.1% ) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Petra\_30 (CV),

#### Start 113:

- Found in 2 of 175 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sapo\_25 (DA),

## Summary by clusters:

There are 16 clusters represented in this pham: A15, singleton, CU3, CU1, DB, DE2, DE4, DE5, CZ4, DA, DC2, CU5, CT, DR, CV, DC1,

Info for manual annotations of cluster A15:

- Start number 27 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster CT:

- Start number 24 was manually annotated 37 times for cluster CT.
- Start number 55 was manually annotated 7 times for cluster CT.

Info for manual annotations of cluster CU1:

- Start number 42 was manually annotated 3 times for cluster CU1.
- Start number 44 was manually annotated 2 times for cluster CU1.
- Start number 46 was manually annotated 3 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 70 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU5:

- Start number 44 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CV:

- Start number 56 was manually annotated 8 times for cluster CV.
- Start number 94 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ4:

- Start number 38 was manually annotated 18 times for cluster CZ4.

Info for manual annotations of cluster DA:

- Start number 50 was manually annotated 2 times for cluster DA.
- Start number 113 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DB:

- Start number 8 was manually annotated 2 times for cluster DB.

Info for manual annotations of cluster DC1:

- Start number 11 was manually annotated 14 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 11 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE2:

- Start number 29 was manually annotated 8 times for cluster DE2.

Info for manual annotations of cluster DE4:

- Start number 29 was manually annotated 13 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 29 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DR:

- Start number 18 was manually annotated 1 time for cluster DR.
- Start number 20 was manually annotated 16 times for cluster DR.

**Gene Information:**

Gene: APunk\_38 Start: 32541, Stop: 33617, Start Num: 29

Candidate Starts for APunk\_38:

(Start: 29 @32541 has 22 MA's), (60, 32649), (77, 32697), (84, 32715), (130, 32862), (132, 32874), (137, 32913), (148, 32952), (155, 32994), (169, 33060), (177, 33075), (184, 33102), (187, 33117), (198, 33174), (205, 33228), (211, 33273), (219, 33342), (223, 33363), (227, 33387), (237, 33462), (248, 33540), (263, 33606),

Gene: Abblin\_37 Start: 33084, Stop: 34160, Start Num: 29

Candidate Starts for Abblin\_37:

(7, 32790), (19, 33018), (Start: 29 @33084 has 22 MA's), (60, 33192), (77, 33240), (84, 33258), (130, 33405), (132, 33417), (137, 33456), (148, 33495), (155, 33537), (169, 33603), (177, 33618), (184, 33645), (187, 33660), (205, 33771), (211, 33816), (213, 33846), (216, 33864), (219, 33885), (223, 33906), (227, 33930), (248, 34083), (263, 34149),

Gene: Adora\_26 Start: 22572, Stop: 23609, Start Num: 38

Candidate Starts for Adora\_26:

(Start: 38 @22572 has 19 MA's), (57, 22641), (59, 22647), (122, 22827), (127, 22848), (137, 22929), (143, 22956), (164, 23049), (195, 23157), (205, 23220), (213, 23295), (248, 23526),

Gene: Agatha\_25 Start: 20517, Stop: 21614, Start Num: 24

Candidate Starts for Agatha\_25:

(Start: 24 @20517 has 37 MA's), (25, 20535), (Start: 50 @20640 has 2 MA's), (112, 20838), (135, 20952), (137, 20970), (139, 20979), (143, 20997), (154, 21033), (179, 21093), (185, 21123), (209, 21273), (212, 21312), (219, 21357), (223, 21375), (227, 21399), (234, 21456), (244, 21516), (249, 21552), (257, 21582), (261, 21603),

Gene: AikoCarson\_24 Start: 19778, Stop: 20890, Start Num: 24

Candidate Starts for AikoCarson\_24:

(17, 19709), (Start: 24 @19778 has 37 MA's), (Start: 50 @19901 has 2 MA's), (112, 20099), (137, 20231), (139, 20240), (171, 20357), (182, 20387), (186, 20402), (191, 20441), (202, 20498), (209, 20549), (219, 20633), (223, 20651), (228, 20684), (240, 20765), (241, 20768), (242, 20771), (261, 20879),

Gene: AksarBAT\_27 Start: 26586, Stop: 27698, Start Num: 20

Candidate Starts for AksarBAT\_27:

(Start: 20 @26586 has 16 MA's), (33, 26655), (Start: 42 @26688 has 3 MA's), (45, 26700), (59, 26751), (Start: 70 @26775 has 1 MA's), (74, 26790), (96, 26856), (129, 26970), (133, 27009), (157, 27108), (178, 27168), (192, 27243), (197, 27267), (198, 27270), (204, 27306), (205, 27321), (206, 27327), (207, 27333), (211, 27366), (219, 27432), (228, 27486), (261, 27684),

Gene: Ali17\_33 Start: 30788, Stop: 31876, Start Num: 29

Candidate Starts for Ali17\_33:

(Start: 29 @30788 has 22 MA's), (60, 30902), (69, 30923), (92, 30992), (97, 31004), (137, 31169), (148, 31208), (177, 31331), (184, 31358), (187, 31373), (198, 31430), (205, 31484), (211, 31529), (219, 31598), (223, 31619), (227, 31643), (237, 31718), (248, 31796), (263, 31862),

Gene: Amok\_24 Start: 19775, Stop: 20848, Start Num: 24

Candidate Starts for Amok\_24:

(17, 19706), (Start: 24 @19775 has 37 MA's), (Start: 50 @19898 has 2 MA's), (112, 20096), (137, 20228), (139, 20237), (171, 20315), (182, 20345), (186, 20360), (191, 20399), (202, 20456), (209, 20507), (219, 20591), (223, 20609), (228, 20642), (240, 20723), (241, 20726), (242, 20729), (261, 20837),

Gene: AnarQue\_29 Start: 28071, Stop: 29183, Start Num: 20

Candidate Starts for AnarQue\_29:

(Start: 20 @28071 has 16 MA's), (45, 28185), (59, 28236), (63, 28245), (Start: 70 @28260 has 1 MA's), (74, 28275), (96, 28341), (129, 28455), (130, 28476), (137, 28527), (148, 28566), (157, 28590), (178, 28650), (198, 28752), (204, 28788), (205, 28803), (219, 28914), (222, 28932), (228, 28968),

Gene: AndPeggy\_24 Start: 20180, Stop: 21292, Start Num: 24

Candidate Starts for AndPeggy\_24:

(Start: 24 @20180 has 37 MA's), (25, 20198), (Start: 50 @20303 has 2 MA's), (88, 20426), (135, 20615), (137, 20633), (139, 20642), (141, 20654), (171, 20759), (191, 20843), (209, 20951), (219, 21035), (223, 21053), (228, 21086), (236, 21149), (240, 21167), (241, 21170), (242, 21173), (249, 21230),

Gene: Annalisa\_26 Start: 22034, Stop: 23074, Start Num: 38

Candidate Starts for Annalisa\_26:

(Start: 38 @22034 has 19 MA's), (57, 22103), (59, 22109), (122, 22289), (127, 22310), (129, 22319), (137, 22391), (143, 22418), (147, 22427), (166, 22514), (168, 22520), (195, 22619), (205, 22682), (219, 22796), (222, 22811), (241, 22934), (248, 22991),

Gene: Anon\_31 Start: 22310, Stop: 23416, Start Num: 27

Candidate Starts for Anon\_31:

(Start: 27 @22310 has 1 MA's), (49, 22391), (54, 22406), (83, 22499), (105, 22559), (112, 22589), (121, 22613), (123, 22622), (128, 22646), (156, 22814), (187, 22919), (194, 22964), (195, 22967), (201, 23000), (205, 23030), (214, 23108), (218, 23138), (219, 23144), (227, 23186), (231, 23222), (241, 23279), (260, 23387),

Gene: Arri\_36 Start: 28916, Stop: 30088, Start Num: 11

Candidate Starts for Arri\_36:

(Start: 11 @28916 has 15 MA's), (26, 29057), (32, 29075), (73, 29210), (92, 29276), (122, 29363), (137, 29465), (184, 29570), (205, 29696), (206, 29702), (219, 29810), (223, 29828), (260, 30053),

Gene: Axumite\_27 Start: 26078, Stop: 27217, Start Num: 20

Candidate Starts for Axumite\_27:

(Start: 20 @26078 has 16 MA's), (22, 26087), (31, 26135), (41, 26174), (45, 26192), (66, 26261), (87, 26330), (90, 26339), (129, 26465), (137, 26537), (143, 26564), (144, 26567), (158, 26639), (180, 26693), (190, 26756), (196, 26783), (198, 26789), (205, 26840), (216, 26930), (248, 27143), (261, 27200), (262, 27206), (263, 27209),

Gene: Axym\_25 Start: 20517, Stop: 21614, Start Num: 24

Candidate Starts for Axym\_25:

(Start: 24 @20517 has 37 MA's), (25, 20535), (Start: 50 @20640 has 2 MA's), (112, 20838), (135, 20952), (137, 20970), (139, 20979), (143, 20997), (154, 21033), (179, 21093), (185, 21123), (209, 21273), (212, 21312), (219, 21357), (223, 21375), (227, 21399), (234, 21456), (244, 21516), (249, 21552), (257, 21582), (261, 21603),

Gene: Azira\_27 Start: 21488, Stop: 22588, Start Num: 24

Candidate Starts for Azira\_27:

(Start: 24 @21488 has 37 MA's), (Start: 50 @21611 has 2 MA's), (93, 21749), (117, 21827), (122, 21839), (126, 21854), (135, 21923), (137, 21941), (142, 21965), (191, 22133), (219, 22325), (222, 22346), (223, 22349), (228, 22382), (236, 22445), (240, 22463), (242, 22469), (261, 22577),

Gene: Bakery\_34 Start: 28127, Stop: 29377, Start Num: 11

Candidate Starts for Bakery\_34:

(Start: 11 @28127 has 15 MA's), (23, 28241), (32, 28286), (36, 28307), (81, 28451), (92, 28487), (122, 28574), (137, 28676), (143, 28703), (177, 28838), (184, 28865), (191, 28907), (192, 28910), (195, 28928), (207, 29003), (213, 29066), (219, 29105), (261, 29354),

Gene: Balloona\_24 Start: 20277, Stop: 21269, Start Num: 55

Candidate Starts for Balloona\_24:

(Start: 55 @20277 has 7 MA's), (107, 20424), (116, 20466), (119, 20472), (121, 20475), (125, 20493), (133, 20550), (137, 20583), (167, 20712), (174, 20721), (191, 20790), (196, 20814), (205, 20874), (213, 20949), (223, 21009), (224, 21012), (241, 21129), (246, 21162), (251, 21198), (260, 21234), (261, 21240), (264, 21252),

Gene: Banquo\_32 Start: 23108, Stop: 24055, Start Num: 44

Candidate Starts for Banquo\_32:

(43, 23105), (Start: 44 @23108 has 3 MA's), (90, 23255), (98, 23276), (115, 23333), (121, 23345), (135, 23438), (137, 23456), (139, 23465), (147, 23492), (160, 23525), (161, 23528), (188, 23576), (192, 23597), (199, 23633), (205, 23684), (206, 23690), (207, 23696), (211, 23729), (214, 23762), (218, 23786), (226, 23834), (233, 23891), (236, 23912), (246, 23969), (253, 24008), (260, 24041), (261, 24047),

Gene: Barb\_35 Start: 28934, Stop: 30106, Start Num: 11

Candidate Starts for Barb\_35:

(Start: 11 @28934 has 15 MA's), (26, 29075), (32, 29093), (73, 29228), (92, 29294), (122, 29381), (137, 29483), (184, 29588), (205, 29714), (206, 29720), (219, 29828), (223, 29846), (260, 30071),

Gene: Bavilard\_25 Start: 21062, Stop: 22054, Start Num: 55

Candidate Starts for Bavilard\_25:

(Start: 55 @21062 has 7 MA's), (107, 21209), (116, 21251), (119, 21257), (121, 21260), (125, 21278), (133, 21335), (137, 21368), (167, 21497), (174, 21506), (191, 21575), (196, 21599), (205, 21659), (213, 21734), (223, 21794), (224, 21797), (241, 21914), (251, 21983), (260, 22019), (261, 22025), (264, 22037),

Gene: Belphegor\_36 Start: 32996, Stop: 34081, Start Num: 29

Candidate Starts for Belphegor\_36:

(Start: 29 @32996 has 22 MA's), (60, 33110), (84, 33176), (97, 33212), (130, 33326), (137, 33377), (148, 33416), (159, 33485), (169, 33524), (177, 33539), (184, 33566), (187, 33581), (198, 33638), (205, 33692), (206, 33698), (211, 33737), (216, 33785), (219, 33806), (223, 33824), (237, 33923), (241, 33944), (248, 34001), (263, 34067),

Gene: BigChungus\_24 Start: 20320, Stop: 21312, Start Num: 55

Candidate Starts for BigChungus\_24:

(Start: 55 @20320 has 7 MA's), (107, 20467), (116, 20509), (119, 20515), (121, 20518), (125, 20536), (133, 20593), (137, 20626), (167, 20755), (174, 20764), (191, 20833), (196, 20857), (205, 20917), (213, 20992), (223, 21052), (224, 21055), (241, 21172), (246, 21205), (251, 21241), (260, 21277), (261, 21283), (264, 21295),

Gene: BigHunkinEater\_40 Start: 32322, Stop: 33398, Start Num: 29

Candidate Starts for BigHunkinEater\_40:

(Start: 29 @32322 has 22 MA's), (60, 32430), (77, 32478), (84, 32496), (130, 32643), (132, 32655), (137, 32694), (148, 32733), (155, 32775), (169, 32841), (177, 32856), (184, 32883), (187, 32898), (198, 32955), (205, 33009), (211, 33054), (219, 33123), (223, 33144), (227, 33168), (237, 33243), (248, 33321), (263, 33387),

Gene: BiggityBass\_27 Start: 28347, Stop: 29480, Start Num: 20

Candidate Starts for BiggityBass\_27:

(Start: 20 @28347 has 16 MA's), (35, 28425), (45, 28461), (137, 28797), (140, 28809), (150, 28851), (180, 28959), (204, 29091), (205, 29106), (211, 29151), (225, 29250), (227, 29259), (261, 29466), (262, 29472),

Gene: BillDoor\_27 Start: 20148, Stop: 21239, Start Num: 24

Candidate Starts for BillDoor\_27:

(Start: 24 @20148 has 37 MA's), (25, 20166), (Start: 50 @20271 has 2 MA's), (135, 20583), (137, 20601), (139, 20610), (141, 20622), (182, 20736), (191, 20790), (195, 20811), (209, 20898), (219, 20982), (223, 21000), (228, 21033), (236, 21096), (240, 21114), (241, 21117), (242, 21120), (249, 21177), (254, 21192), (261, 21228),

Gene: Biskit\_26 Start: 20168, Stop: 21265, Start Num: 24

Candidate Starts for Biskit\_26:

(17, 20099), (Start: 24 @20168 has 37 MA's), (25, 20186), (Start: 50 @20291 has 2 MA's), (114, 20498), (135, 20603), (137, 20621), (139, 20630), (153, 20684), (179, 20744), (202, 20873), (209, 20924), (219, 21008), (223, 21026), (228, 21059), (235, 21110), (236, 21122), (254, 21218), (261, 21254),

Gene: Blackpen\_29 Start: 27489, Stop: 28601, Start Num: 20

Candidate Starts for Blackpen\_29:

(Start: 20 @27489 has 16 MA's), (45, 27603), (59, 27654), (63, 27663), (Start: 70 @27678 has 1 MA's), (74, 27693), (96, 27759), (129, 27873), (130, 27894), (137, 27945), (148, 27984), (157, 28008), (178, 28068), (198, 28170), (204, 28206), (205, 28221), (219, 28332), (222, 28350), (228, 28386),

Gene: Blondies\_26 Start: 20151, Stop: 21248, Start Num: 24

Candidate Starts for Blondies\_26:

(17, 20082), (Start: 24 @20151 has 37 MA's), (25, 20169), (Start: 50 @20274 has 2 MA's), (114, 20481), (135, 20586), (137, 20604), (139, 20613), (153, 20667), (179, 20727), (202, 20856), (209, 20907), (219, 20991), (223, 21009), (228, 21042), (235, 21093), (236, 21105), (254, 21201), (261, 21237),

Gene: BobRoss2024\_26 Start: 26114, Stop: 27235, Start Num: 20

Candidate Starts for BobRoss2024\_26:

(Start: 20 @26114 has 16 MA's), (74, 26321), (114, 26450), (124, 26480), (133, 26540), (137, 26573), (157, 26636), (191, 26768), (195, 26789), (219, 26966), (228, 27017), (229, 27035),

Gene: Bubble\_25 Start: 20517, Stop: 21614, Start Num: 24

Candidate Starts for Bubble\_25:

(Start: 24 @20517 has 37 MA's), (25, 20535), (Start: 50 @20640 has 2 MA's), (112, 20838), (135, 20952), (137, 20970), (139, 20979), (143, 20997), (154, 21033), (179, 21093), (185, 21123), (209, 21273), (212, 21312), (219, 21357), (223, 21375), (227, 21399), (234, 21456), (244, 21516), (249, 21552), (257, 21582), (261, 21603),

Gene: Burnsey\_25 Start: 20518, Stop: 21615, Start Num: 24

Candidate Starts for Burnsey\_25:

(Start: 24 @20518 has 37 MA's), (25, 20536), (Start: 50 @20641 has 2 MA's), (112, 20839), (135, 20953), (137, 20971), (139, 20980), (143, 20998), (154, 21034), (179, 21094), (185, 21124), (209, 21274), (212, 21313), (219, 21358), (223, 21376), (234, 21457), (244, 21517), (249, 21553), (257, 21583), (261, 21604),

Gene: Buttrmlkdreams\_25 Start: 20150, Stop: 21247, Start Num: 24

Candidate Starts for Buttrmlkdreams\_25:

(17, 20081), (Start: 24 @20150 has 37 MA's), (25, 20168), (Start: 50 @20273 has 2 MA's), (114, 20480), (135, 20585), (137, 20603), (139, 20612), (153, 20666), (179, 20726), (202, 20855), (209, 20906), (219, 20990), (223, 21008), (228, 21041), (235, 21092), (236, 21104), (254, 21200), (261, 21236),

Gene: CaiB\_29 Start: 28057, Stop: 29169, Start Num: 20

Candidate Starts for CaiB\_29:

(Start: 20 @28057 has 16 MA's), (45, 28171), (59, 28222), (63, 28231), (Start: 70 @28246 has 1 MA's), (74, 28261), (96, 28327), (129, 28441), (130, 28462), (137, 28513), (148, 28552), (157, 28576), (178, 28636), (198, 28738), (204, 28774), (205, 28789), (219, 28900), (222, 28918), (228, 28954),

Gene: CanesSauce\_25 Start: 20181, Stop: 21293, Start Num: 24

Candidate Starts for CanesSauce\_25:

(Start: 24 @20181 has 37 MA's), (25, 20199), (Start: 50 @20304 has 2 MA's), (88, 20427), (135, 20616), (137, 20634), (139, 20643), (141, 20655), (171, 20760), (191, 20844), (209, 20952), (219, 21036), (223, 21054), (228, 21087), (236, 21150), (240, 21168), (241, 21171), (242, 21174), (249, 21231), (261, 21282),

Gene: Caramellatte\_25 Start: 20181, Stop: 21293, Start Num: 24

Candidate Starts for Caramellatte\_25:

(Start: 24 @20181 has 37 MA's), (25, 20199), (Start: 50 @20304 has 2 MA's), (88, 20427), (135, 20616), (137, 20634), (139, 20643), (141, 20655), (171, 20760), (191, 20844), (209, 20952), (219, 21036), (223, 21054), (228, 21087), (236, 21150), (240, 21168), (241, 21171), (242, 21174), (249, 21231), (261, 21282),

Gene: Carsonalex\_26 Start: 20575, Stop: 21672, Start Num: 24

Candidate Starts for Carsonalex\_26:

(Start: 24 @20575 has 37 MA's), (Start: 50 @20698 has 2 MA's), (112, 20896), (135, 21010), (137, 21028), (139, 21037), (143, 21055), (154, 21091), (179, 21151), (185, 21181), (209, 21331), (212, 21370), (219, 21415), (223, 21433), (227, 21457), (229, 21484), (234, 21514), (244, 21574), (249, 21610), (257, 21640), (261, 21661),

Gene: Catfish\_29 Start: 24416, Stop: 25366, Start Num: 44

Candidate Starts for Catfish\_29:

(Start: 44 @24416 has 3 MA's), (52, 24446), (63, 24482), (Start: 70 @24497 has 1 MA's), (78, 24527), (90, 24566), (103, 24599), (114, 24641), (135, 24749), (137, 24767), (147, 24803), (158, 24830), (181, 24854), (189, 24896), (199, 24944), (203, 24971), (207, 25007), (208, 25010), (211, 25040), (223, 25127), (225, 25142), (233, 25202), (243, 25259), (246, 25280), (258, 25340), (261, 25358),

Gene: CharlottesWeb\_27 Start: 26001, Stop: 27152, Start Num: 20

Candidate Starts for CharlottesWeb\_27:

(Start: 20 @26001 has 16 MA's), (31, 26061), (74, 26211), (87, 26256), (90, 26265), (95, 26277), (99, 26286), (129, 26391), (137, 26463), (170, 26610), (190, 26694), (191, 26697), (194, 26715), (196, 26721), (198, 26727), (203, 26754), (204, 26763), (205, 26778), (225, 26922), (226, 26925), (227, 26931), (248, 27081), (261, 27138), (262, 27144),

Gene: CheeseSpider\_32 Start: 23943, Stop: 24920, Start Num: 56

Candidate Starts for CheeseSpider\_32:

(40, 23883), (Start: 56 @23943 has 8 MA's), (85, 24024), (Start: 94 @24057 has 1 MA's), (108, 24084), (118, 24123), (127, 24150), (134, 24207), (137, 24231), (174, 24369), (191, 24444), (194, 24462), (195, 24465), (205, 24528), (211, 24573), (219, 24642), (248, 24834), (260, 24885),

Gene: ChocoMunchkin\_25 Start: 20181, Stop: 21293, Start Num: 24

Candidate Starts for ChocoMunchkin\_25:

(Start: 24 @20181 has 37 MA's), (25, 20199), (Start: 50 @20304 has 2 MA's), (88, 20427), (135, 20616), (137, 20634), (139, 20643), (141, 20655), (171, 20760), (191, 20844), (209, 20952), (219, 21036), (223, 21054), (228, 21087), (236, 21150), (240, 21168), (241, 21171), (242, 21174), (249, 21231), (261, 21282),

Gene: ClamChowder\_35 Start: 28934, Stop: 30106, Start Num: 11

Candidate Starts for ClamChowder\_35:

(Start: 11 @28934 has 15 MA's), (26, 29075), (32, 29093), (73, 29228), (92, 29294), (122, 29381), (137, 29483), (184, 29588), (205, 29714), (206, 29720), (219, 29828), (223, 29846), (260, 30071),

Gene: Clark\_26 Start: 22034, Stop: 23071, Start Num: 38

Candidate Starts for Clark\_26:

(10, 21863), (12, 21866), (Start: 38 @22034 has 19 MA's), (57, 22103), (59, 22109), (122, 22289), (127, 22310), (137, 22391), (143, 22418), (164, 22511), (195, 22619), (205, 22682), (213, 22757), (248, 22988),

Gene: Cleo\_25 Start: 20832, Stop: 21935, Start Num: 24

Candidate Starts for Cleo\_25:

(Start: 24 @20832 has 37 MA's), (30, 20868), (Start: 50 @20955 has 2 MA's), (62, 21000), (67, 21012), (68, 21015), (75, 21036), (93, 21093), (122, 21183), (130, 21234), (135, 21267), (137, 21285), (154, 21348), (170, 21396), (192, 21483), (209, 21588), (219, 21672), (220, 21678), (221, 21684), (225, 21711), (226, 21714), (228, 21729), (240, 21810), (242, 21816),

Gene: CloverMinnie\_29 Start: 27997, Stop: 29109, Start Num: 20

Candidate Starts for CloverMinnie\_29:

(Start: 20 @27997 has 16 MA's), (45, 28111), (59, 28162), (63, 28171), (Start: 70 @28186 has 1 MA's), (74, 28201), (96, 28267), (129, 28381), (130, 28402), (137, 28453), (148, 28492), (157, 28516), (178, 28576), (198, 28678), (204, 28714), (205, 28729), (219, 28840), (222, 28858), (228, 28894),

Gene: Clown\_37 Start: 30957, Stop: 32189, Start Num: 11

Candidate Starts for Clown\_37:

(Start: 11 @30957 has 15 MA's), (14, 30987), (21, 31059), (23, 31071), (26, 31098), (32, 31116), (48, 31185), (72, 31251), (122, 31404), (125, 31416), (127, 31425), (137, 31506), (159, 31602), (192, 31719), (195, 31737), (205, 31800), (217, 31902), (219, 31914), (225, 31947), (236, 32028), (242, 32052), (248, 32106), (260, 32157), (261, 32163),

Gene: CocoaPuff\_24 Start: 20274, Stop: 21266, Start Num: 55

Candidate Starts for CocoaPuff\_24:

(Start: 55 @20274 has 7 MA's), (116, 20463), (119, 20469), (121, 20472), (125, 20490), (133, 20547), (137, 20580), (167, 20709), (174, 20718), (191, 20787), (196, 20811), (205, 20871), (213, 20946), (223, 21006), (224, 21009), (241, 21126), (246, 21159), (251, 21195), (260, 21231), (261, 21237), (264, 21249),

Gene: Coldpizza\_30 Start: 30502, Stop: 31638, Start Num: 20

Candidate Starts for Coldpizza\_30:

(Start: 20 @30502 has 16 MA's), (31, 30559), (74, 30706), (129, 30868), (133, 30907), (136, 30931), (137, 30940), (173, 31090), (176, 31096), (185, 31129), (187, 31147), (188, 31156), (195, 31195), (200, 31216), (204, 31243), (205, 31258), (206, 31264), (213, 31333), (219, 31372), (227, 31414),

Gene: CoveyB\_35 Start: 28734, Stop: 29906, Start Num: 11

Candidate Starts for CoveyB\_35:

(Start: 11 @28734 has 15 MA's), (26, 28875), (32, 28893), (73, 29028), (92, 29094), (122, 29181), (137, 29283), (184, 29388), (205, 29514), (206, 29520), (219, 29628), (223, 29646), (260, 29871),

Gene: Cozz\_25 Start: 20518, Stop: 21615, Start Num: 24

Candidate Starts for Cozz\_25:

(Start: 24 @20518 has 37 MA's), (25, 20536), (Start: 50 @20641 has 2 MA's), (112, 20839), (135, 20953), (137, 20971), (139, 20980), (143, 20998), (154, 21034), (179, 21094), (185, 21124), (209, 21274), (212, 21313), (219, 21358), (223, 21376), (227, 21400), (234, 21457), (244, 21517), (249, 21553), (257, 21583), (261, 21604),

Gene: Danyall\_35 Start: 28734, Stop: 29906, Start Num: 11

Candidate Starts for Danyall\_35:

(Start: 11 @28734 has 15 MA's), (26, 28875), (32, 28893), (73, 29028), (92, 29094), (122, 29181), (137, 29283), (184, 29388), (205, 29514), (206, 29520), (219, 29628), (223, 29646), (260, 29871),

Gene: Dardanus\_31 Start: 23524, Stop: 24384, Start Num: 70

Candidate Starts for Dardanus\_31:

(33, 23410), (39, 23434), (Start: 42 @23443 has 3 MA's), (47, 23455), (Start: 70 @23524 has 1 MA's), (102, 23611), (109, 23626), (135, 23764), (137, 23782), (147, 23818), (157, 23836), (199, 23959), (203, 23986), (211, 24055), (226, 24160), (232, 24214), (233, 24217), (239, 24256), (243, 24274), (246, 24295), (255, 24340), (258, 24355), (261, 24373),

Gene: Delrey21\_36 Start: 33271, Stop: 34347, Start Num: 29

Candidate Starts for Delrey21\_36:

(Start: 29 @33271 has 22 MA's), (60, 33379), (76, 33424), (84, 33445), (130, 33592), (137, 33643), (148, 33682), (155, 33724), (169, 33790), (177, 33805), (184, 33832), (187, 33847), (198, 33904), (205, 33958), (206, 33964), (211, 34003), (219, 34072), (223, 34093), (227, 34117), (237, 34192), (248, 34270), (263, 34336),

Gene: DinoDaryn\_31 Start: 22562, Stop: 23509, Start Num: 46

Candidate Starts for DinoDaryn\_31:

(Start: 46 @22562 has 3 MA's), (98, 22733), (121, 22802), (135, 22895), (137, 22913), (190, 23045), (193, 23060), (199, 23087), (207, 23150), (211, 23183), (214, 23216), (233, 23345), (242, 23390), (246, 23420), (250, 23447), (252, 23456), (261, 23498),

Gene: DobbysSock\_25 Start: 21508, Stop: 22545, Start Num: 38

Candidate Starts for DobbysSock\_25:

(10, 21337), (12, 21340), (Start: 38 @21508 has 19 MA's), (57, 21577), (59, 21583), (122, 21763), (129, 21793), (137, 21865), (143, 21892), (164, 21985), (195, 22093), (205, 22156), (213, 22231), (248, 22462),

Gene: DoctorFroggo\_36 Start: 33271, Stop: 34347, Start Num: 29

Candidate Starts for DoctorFroggo\_36:

(Start: 29 @33271 has 22 MA's), (60, 33379), (76, 33424), (84, 33445), (130, 33592), (137, 33643), (148, 33682), (155, 33724), (169, 33790), (177, 33805), (184, 33832), (187, 33847), (198, 33904), (205, 33958), (206, 33964), (211, 34003), (219, 34072), (223, 34093), (227, 34117), (237, 34192),

(248, 34270), (263, 34336),

Gene: Doggs\_27 Start: 22931, Stop: 24244, Start Num: 8

Candidate Starts for Doggs\_27:

(1, 22643), (2, 22700), (3, 22715), (5, 22796), (6, 22799), (Start: 8 @22931 has 2 MA's), (14, 23015), (28, 23129), (68, 23282), (80, 23318), (82, 23321), (91, 23351), (110, 23405), (137, 23549), (177, 23705), (183, 23729), (192, 23777), (200, 23816), (205, 23858), (216, 23951), (217, 23960), (219, 23972), (261, 24221),

Gene: Dolores\_26 Start: 22010, Stop: 23047, Start Num: 38

Candidate Starts for Dolores\_26:

(10, 21839), (12, 21842), (Start: 38 @22010 has 19 MA's), (57, 22079), (59, 22085), (122, 22265), (127, 22286), (137, 22367), (143, 22394), (164, 22487), (195, 22595), (205, 22658), (213, 22733), (248, 22964),

Gene: Dorito\_25 Start: 21473, Stop: 22513, Start Num: 38

Candidate Starts for Dorito\_25:

(Start: 38 @21473 has 19 MA's), (57, 21542), (59, 21548), (122, 21728), (137, 21830), (142, 21854), (143, 21857), (147, 21866), (166, 21953), (195, 22058), (203, 22097), (205, 22121), (211, 22166), (216, 22214), (217, 22223), (219, 22235), (222, 22250), (241, 22373), (248, 22430),

Gene: Dre3\_25 Start: 20758, Stop: 21861, Start Num: 24

Candidate Starts for Dre3\_25:

(Start: 24 @20758 has 37 MA's), (30, 20794), (Start: 50 @20881 has 2 MA's), (93, 21019), (122, 21109), (130, 21160), (135, 21193), (137, 21211), (154, 21274), (170, 21322), (192, 21409), (209, 21514), (219, 21598), (220, 21604), (221, 21610), (225, 21637), (228, 21655), (240, 21736), (241, 21739), (242, 21742),

Gene: Easley\_26 Start: 22020, Stop: 23057, Start Num: 38

Candidate Starts for Easley\_26:

(10, 21849), (12, 21852), (Start: 38 @22020 has 19 MA's), (57, 22089), (59, 22095), (122, 22275), (127, 22296), (137, 22377), (143, 22404), (164, 22497), (195, 22605), (222, 22797), (241, 22917), (248, 22974),

Gene: Egi03\_33 Start: 28412, Stop: 29584, Start Num: 11

Candidate Starts for Egi03\_33:

(Start: 11 @28412 has 15 MA's), (26, 28553), (32, 28571), (73, 28706), (92, 28772), (122, 28859), (137, 28961), (184, 29066), (205, 29192), (206, 29198), (219, 29306), (223, 29324), (260, 29549),

Gene: ElJefes\_24 Start: 20753, Stop: 21745, Start Num: 55

Candidate Starts for ElJefes\_24:

(Start: 55 @20753 has 7 MA's), (107, 20900), (116, 20942), (119, 20948), (121, 20951), (125, 20969), (133, 21026), (137, 21059), (148, 21098), (167, 21188), (174, 21197), (191, 21266), (196, 21290), (205, 21350), (213, 21425), (219, 21464), (223, 21485), (224, 21488), (241, 21605), (246, 21638), (251, 21674), (260, 21710), (261, 21716), (264, 21728),

Gene: Elliott\_25 Start: 20517, Stop: 21614, Start Num: 24

Candidate Starts for Elliott\_25:

(Start: 24 @20517 has 37 MA's), (25, 20535), (Start: 50 @20640 has 2 MA's), (112, 20838), (137, 20970), (139, 20979), (143, 20997), (154, 21033), (179, 21093), (185, 21123), (209, 21273), (212, 21312), (219, 21357), (223, 21375), (234, 21456), (244, 21516), (249, 21552), (257, 21582), (261, 21603),

Gene: Emalyn\_24 Start: 19777, Stop: 20889, Start Num: 24

Candidate Starts for Emalyn\_24:

(17, 19708), (Start: 24 @19777 has 37 MA's), (Start: 50 @19900 has 2 MA's), (112, 20098), (137, 20230), (139, 20239), (171, 20356), (182, 20386), (186, 20401), (191, 20440), (202, 20497), (209, 20548), (219, 20632), (223, 20650), (228, 20683), (240, 20764), (241, 20767), (242, 20770), (261, 20878),

Gene: Fairfaxidum\_28 Start: 23698, Stop: 24678, Start Num: 56

Candidate Starts for Fairfaxidum\_28:

(40, 23638), (Start: 56 @23698 has 8 MA's), (127, 23905), (137, 23986), (138, 23989), (143, 24013), (159, 24082), (166, 24109), (194, 24217), (195, 24220), (198, 24229), (205, 24283), (207, 24295), (213, 24358), (227, 24439), (230, 24469), (248, 24589), (265, 24661), (266, 24670),

Gene: Feastonyeet\_24 Start: 20320, Stop: 21312, Start Num: 55

Candidate Starts for Feastonyeet\_24:

(Start: 55 @20320 has 7 MA's), (107, 20467), (116, 20509), (119, 20515), (121, 20518), (125, 20536), (133, 20593), (137, 20626), (167, 20755), (174, 20764), (191, 20833), (196, 20857), (205, 20917), (213, 20992), (223, 21052), (224, 21055), (241, 21172), (246, 21205), (251, 21241), (260, 21277), (261, 21283), (264, 21295),

Gene: FelixTres\_29 Start: 28060, Stop: 29172, Start Num: 20

Candidate Starts for FelixTres\_29:

(Start: 20 @28060 has 16 MA's), (45, 28174), (59, 28225), (63, 28234), (Start: 70 @28249 has 1 MA's), (74, 28264), (96, 28330), (129, 28444), (130, 28465), (137, 28516), (148, 28555), (157, 28579), (178, 28639), (198, 28741), (204, 28777), (205, 28792), (219, 28903), (222, 28921), (228, 28957),

Gene: Fresco\_27 Start: 26078, Stop: 27217, Start Num: 20

Candidate Starts for Fresco\_27:

(Start: 20 @26078 has 16 MA's), (22, 26087), (31, 26135), (41, 26174), (45, 26192), (66, 26261), (87, 26330), (90, 26339), (129, 26465), (137, 26537), (143, 26564), (144, 26567), (158, 26639), (180, 26693), (190, 26756), (196, 26783), (198, 26789), (205, 26840), (216, 26930), (248, 27143), (261, 27200), (262, 27206), (263, 27209),

Gene: Fribs8\_26 Start: 21343, Stop: 22440, Start Num: 24

Candidate Starts for Fribs8\_26:

(Start: 24 @21343 has 37 MA's), (25, 21361), (Start: 50 @21466 has 2 MA's), (93, 21604), (122, 21694), (126, 21709), (135, 21778), (137, 21796), (141, 21817), (142, 21820), (191, 21985), (202, 22042), (206, 22075), (215, 22144), (219, 22177), (221, 22189), (223, 22201), (228, 22234), (232, 22273), (241, 22318), (261, 22429),

Gene: Frizzle\_25 Start: 21406, Stop: 22404, Start Num: 50

Candidate Starts for Frizzle\_25:

(Start: 50 @21406 has 2 MA's), (68, 21466), (75, 21487), (86, 21523), (104, 21568), (112, 21595), (120, 21619), (126, 21640), (133, 21694), (139, 21736), (172, 21868), (191, 21952), (205, 22036), (219, 22144), (240, 22276), (241, 22279), (248, 22333), (249, 22339), (257, 22369),

Gene: Fugax\_35 Start: 28934, Stop: 30106, Start Num: 11

Candidate Starts for Fugax\_35:

(Start: 11 @28934 has 15 MA's), (26, 29075), (32, 29093), (73, 29228), (92, 29294), (122, 29381), (137, 29483), (184, 29588), (205, 29714), (206, 29720), (219, 29828), (223, 29846), (260, 30071),

Gene: GTE2\_22 Start: 19853, Stop: 20965, Start Num: 24

Candidate Starts for GTE2\_22:

(Start: 24 @19853 has 37 MA's), (25, 19871), (Start: 50 @19976 has 2 MA's), (88, 20099), (118, 20195), (135, 20288), (137, 20306), (141, 20327), (191, 20516), (195, 20537), (209, 20624), (219, 20708), (223, 20726), (228, 20759), (232, 20798), (240, 20840), (241, 20843), (242, 20846), (261, 20954),

Gene: Ghobes\_26 Start: 21406, Stop: 22404, Start Num: 50

Candidate Starts for Ghobes\_26:

(Start: 50 @21406 has 2 MA's), (68, 21466), (75, 21487), (86, 21523), (104, 21568), (112, 21595), (120, 21619), (126, 21640), (133, 21694), (139, 21736), (148, 21772), (172, 21868), (191, 21952), (205, 22036), (219, 22144), (240, 22276), (248, 22333), (249, 22339), (257, 22369),

Gene: Gibbous\_25 Start: 20758, Stop: 21861, Start Num: 24

Candidate Starts for Gibbous\_25:

(Start: 24 @20758 has 37 MA's), (30, 20794), (Start: 50 @20881 has 2 MA's), (93, 21019), (122, 21109), (130, 21160), (135, 21193), (137, 21211), (154, 21274), (170, 21322), (192, 21409), (209, 21514), (219, 21598), (220, 21604), (221, 21610), (225, 21637), (228, 21655), (240, 21736), (241, 21739), (242, 21742),

Gene: Goib\_30 Start: 22610, Stop: 23578, Start Num: 42

Candidate Starts for Goib\_30:

(13, 22433), (33, 22577), (39, 22601), (Start: 42 @22610 has 3 MA's), (Start: 46 @22625 has 3 MA's), (98, 22796), (102, 22805), (121, 22865), (135, 22958), (137, 22976), (147, 23012), (148, 23015), (157, 23030), (197, 23138), (199, 23150), (207, 23216), (211, 23249), (219, 23312), (226, 23354), (227, 23360), (229, 23387), (230, 23390), (232, 23408), (233, 23411), (239, 23450), (242, 23456), (246, 23489), (261, 23567),

Gene: GoldHunter\_26 Start: 20518, Stop: 21615, Start Num: 24

Candidate Starts for GoldHunter\_26:

(Start: 24 @20518 has 37 MA's), (25, 20536), (Start: 50 @20641 has 2 MA's), (112, 20839), (135, 20953), (137, 20971), (139, 20980), (143, 20998), (154, 21034), (179, 21094), (185, 21124), (209, 21274), (212, 21313), (219, 21358), (223, 21376), (227, 21400), (234, 21457), (244, 21517), (249, 21553), (257, 21583), (261, 21604),

Gene: Gudmit\_25 Start: 20321, Stop: 21364, Start Num: 38

Candidate Starts for Gudmit\_25:

(9, 20090), (16, 20186), (17, 20189), (Start: 38 @20321 has 19 MA's), (40, 20327), (53, 20372), (58, 20396), (62, 20405), (76, 20444), (122, 20579), (129, 20609), (137, 20681), (143, 20708), (164, 20801), (195, 20909), (205, 20972), (211, 21017), (213, 21047), (222, 21101), (248, 21278),

Gene: Hans\_37 Start: 31512, Stop: 32516, Start Num: 29

Candidate Starts for Hans\_37:

(Start: 29 @31512 has 22 MA's), (60, 31626), (69, 31647), (84, 31692), (97, 31728), (135, 31875), (137, 31893), (184, 31998), (198, 32070), (205, 32124), (211, 32169), (219, 32238), (223, 32259), (227, 32283), (237, 32358), (248, 32436), (263, 32502),

Gene: HippoPololi\_27 Start: 21407, Stop: 22510, Start Num: 24

Candidate Starts for HippoPololi\_27:

(Start: 24 @21407 has 37 MA's), (30, 21443), (Start: 50 @21530 has 2 MA's), (62, 21575), (67, 21587), (68, 21590), (88, 21653), (93, 21668), (101, 21689), (112, 21728), (122, 21758), (135, 21842), (137, 21860), (146, 21896), (154, 21923), (170, 21971), (192, 22058), (209, 22163), (219, 22247), (220, 22253), (221, 22259), (225, 22286), (226, 22289), (228, 22304), (240, 22385), (242, 22391),

Gene: Horseradish\_26 Start: 20064, Stop: 21086, Start Num: 24

Candidate Starts for Horseradish\_26:

(17, 19995), (Start: 24 @20064 has 37 MA's), (25, 20082), (Start: 50 @20187 has 2 MA's), (135, 20499), (137, 20517), (139, 20526), (145, 20550), (179, 20565), (202, 20694), (209, 20745), (211, 20766), (219, 20829), (223, 20847), (228, 20880), (236, 20943), (254, 21039),

Gene: Hortense\_26 Start: 22619, Stop: 23656, Start Num: 38

Candidate Starts for Hortense\_26:

(Start: 38 @22619 has 19 MA's), (57, 22688), (59, 22694), (122, 22874), (127, 22895), (137, 22976), (143, 23003), (164, 23096), (195, 23204), (205, 23267), (213, 23342), (248, 23573),

Gene: Howe\_26 Start: 22619, Stop: 23656, Start Num: 38

Candidate Starts for Howe\_26:

(Start: 38 @22619 has 19 MA's), (57, 22688), (59, 22694), (122, 22874), (127, 22895), (137, 22976), (143, 23003), (164, 23096), (195, 23204), (205, 23267), (213, 23342), (248, 23573),

Gene: Huff\_31 Start: 22562, Stop: 23509, Start Num: 46

Candidate Starts for Huff\_31:

(Start: 46 @22562 has 3 MA's), (98, 22733), (121, 22802), (135, 22895), (137, 22913), (190, 23045), (193, 23060), (199, 23087), (207, 23150), (211, 23183), (214, 23216), (218, 23240), (233, 23345), (242, 23390), (246, 23420), (250, 23447), (252, 23456), (261, 23498),

Gene: Inspectinfecti\_36 Start: 31874, Stop: 32962, Start Num: 29

Candidate Starts for Inspectinfecti\_36:

(Start: 29 @31874 has 22 MA's), (60, 31988), (69, 32009), (84, 32054), (97, 32090), (137, 32255), (148, 32294), (155, 32336), (177, 32417), (184, 32444), (187, 32459), (205, 32570), (211, 32615), (216, 32663), (219, 32684), (223, 32705), (227, 32729), (248, 32882), (263, 32948),

Gene: JellyBelly\_27 Start: 26004, Stop: 27155, Start Num: 20

Candidate Starts for JellyBelly\_27:

(Start: 20 @26004 has 16 MA's), (31, 26064), (74, 26214), (87, 26259), (90, 26268), (95, 26280), (99, 26289), (129, 26394), (137, 26466), (170, 26613), (190, 26697), (191, 26700), (194, 26718), (196, 26724), (198, 26730), (203, 26757), (204, 26766), (205, 26781), (225, 26925), (226, 26928), (227, 26934), (248, 27084), (261, 27141), (262, 27147),

Gene: JohnPork\_33 Start: 28253, Stop: 29425, Start Num: 11

Candidate Starts for JohnPork\_33:

(Start: 11 @28253 has 15 MA's), (26, 28394), (32, 28412), (73, 28547), (92, 28613), (100, 28631), (114, 28682), (122, 28700), (137, 28802), (184, 28907), (205, 29033), (206, 29039), (219, 29147), (223, 29165), (260, 29390),

Gene: KappaFarmDelta\_30 Start: 23868, Stop: 24845, Start Num: 56

Candidate Starts for KappaFarmDelta\_30:

(40, 23808), (Start: 56 @23868 has 8 MA's), (85, 23949), (Start: 94 @23982 has 1 MA's), (108, 24009), (127, 24075), (134, 24132), (137, 24156), (159, 24252), (194, 24387), (195, 24390), (205, 24453), (211, 24498), (219, 24567), (224, 24588), (248, 24759), (260, 24810),

Gene: Kiko\_28 Start: 22114, Stop: 23412, Start Num: 8

Candidate Starts for Kiko\_28:

(2, 21883), (3, 21898), (4, 21934), (6, 21982), (Start: 8 @22114 has 2 MA's), (14, 22198), (15, 22207), (28, 22309), (68, 22462), (111, 22594), (Start: 113 @22600 has 1 MA's), (137, 22729), (159, 22825), (164, 22849), (166, 22852), (194, 22957), (195, 22960), (205, 23023), (224, 23158), (241, 23272), (248, 23329),

Gene: Leonard\_35 Start: 31510, Stop: 32598, Start Num: 29

Candidate Starts for Leonard\_35:

(Start: 29 @31510 has 22 MA's), (60, 31624), (69, 31645), (92, 31714), (97, 31726), (137, 31891), (148, 31930), (155, 31972), (177, 32053), (184, 32080), (187, 32095), (198, 32152), (205, 32206), (211, 32251), (219, 32320), (223, 32341), (227, 32365), (237, 32440), (248, 32518), (263, 32584),

Gene: Ligma\_27 Start: 26078, Stop: 27217, Start Num: 20

Candidate Starts for Ligma\_27:

(Start: 20 @26078 has 16 MA's), (22, 26087), (31, 26135), (41, 26174), (45, 26192), (66, 26261), (87, 26330), (90, 26339), (129, 26465), (137, 26537), (143, 26564), (144, 26567), (158, 26639), (180, 26693), (190, 26756), (196, 26783), (198, 26789), (205, 26840), (216, 26930), (248, 27143), (261, 27200), (262, 27206), (263, 27209),

Gene: Lilbeanie\_32 Start: 26757, Stop: 27755, Start Num: 29

Candidate Starts for Lilbeanie\_32:

(Start: 29 @26757 has 22 MA's), (60, 26865), (61, 26868), (65, 26877), (84, 26931), (89, 26943), (92, 26955), (106, 26985), (135, 27114), (137, 27132), (161, 27198), (162, 27204), (184, 27234), (205, 27360), (213, 27435), (223, 27495), (226, 27513), (248, 27669),

Gene: MScarn\_27 Start: 20153, Stop: 21250, Start Num: 24

Candidate Starts for MScarn\_27:

(17, 20084), (Start: 24 @20153 has 37 MA's), (25, 20171), (Start: 50 @20276 has 2 MA's), (114, 20483), (135, 20588), (137, 20606), (139, 20615), (153, 20669), (179, 20729), (202, 20858), (209, 20909), (219, 20993), (223, 21011), (228, 21044), (235, 21095), (236, 21107), (254, 21203), (261, 21239),

Gene: MaVan\_27 Start: 21488, Stop: 22621, Start Num: 24

Candidate Starts for MaVan\_27:

(Start: 24 @21488 has 37 MA's), (Start: 50 @21611 has 2 MA's), (93, 21749), (117, 21827), (122, 21839), (126, 21854), (135, 21923), (137, 21941), (142, 21965), (151, 22001), (170, 22082), (191, 22166), (219, 22358), (221, 22370), (223, 22382), (228, 22415), (232, 22454), (241, 22499), (261, 22610),

Gene: MakoManhole\_29 Start: 28075, Stop: 29187, Start Num: 20

Candidate Starts for MakoManhole\_29:

(Start: 20 @28075 has 16 MA's), (45, 28189), (59, 28240), (63, 28249), (Start: 70 @28264 has 1 MA's), (74, 28279), (96, 28345), (129, 28459), (130, 28480), (137, 28531), (148, 28570), (157, 28594), (178, 28654), (198, 28756), (204, 28792), (205, 28807), (219, 28918), (222, 28936), (228, 28972),

Gene: Malvina\_27 Start: 21446, Stop: 22513, Start Num: 30

Candidate Starts for Malvina\_27:

(Start: 24 @21410 has 37 MA's), (30, 21446), (Start: 50 @21533 has 2 MA's), (62, 21578), (67, 21590), (68, 21593), (88, 21656), (93, 21671), (101, 21692), (112, 21731), (122, 21761), (135, 21845), (137, 21863), (146, 21899), (154, 21926), (170, 21974), (192, 22061), (209, 22166), (219, 22250), (220, 22256), (221, 22262), (225, 22289), (226, 22292), (228, 22307), (240, 22388), (242, 22394),

Gene: Mariokart\_27 Start: 26000, Stop: 27151, Start Num: 20

Candidate Starts for Mariokart\_27:

(Start: 20 @26000 has 16 MA's), (31, 26060), (74, 26210), (87, 26255), (90, 26264), (95, 26276), (99, 26285), (129, 26390), (137, 26462), (170, 26609), (190, 26693), (191, 26696), (194, 26714), (196, 26720), (198, 26726), (203, 26753), (204, 26762), (205, 26777), (225, 26921), (226, 26924), (227, 26930), (248, 27080), (261, 27137), (262, 27143),

Gene: McDazzle\_24 Start: 20747, Stop: 21739, Start Num: 55

Candidate Starts for McDazzle\_24:

(Start: 55 @20747 has 7 MA's), (107, 20894), (116, 20936), (119, 20942), (121, 20945), (125, 20963), (133, 21020), (137, 21053), (148, 21092), (167, 21182), (174, 21191), (191, 21260), (196, 21284), (205, 21344), (213, 21419), (219, 21458), (223, 21479), (224, 21482), (241, 21599), (246, 21632), (251, 21668), (260, 21704), (261, 21710), (264, 21722),

Gene: Mcklovin\_26 Start: 24788, Stop: 25825, Start Num: 38

Candidate Starts for Mcklovin\_26:

(10, 24617), (12, 24620), (Start: 38 @24788 has 19 MA's), (57, 24857), (59, 24863), (122, 25043), (127, 25064), (137, 25145), (143, 25172), (164, 25265), (195, 25373), (205, 25436), (213, 25511), (248, 25742),

Gene: MelBins\_36 Start: 31659, Stop: 32747, Start Num: 29

Candidate Starts for MelBins\_36:

(Start: 29 @31659 has 22 MA's), (60, 31773), (69, 31794), (84, 31839), (92, 31863), (97, 31875), (137, 32040), (148, 32079), (155, 32121), (177, 32202), (184, 32229), (187, 32244), (205, 32355), (211, 32400), (216, 32448), (219, 32469), (223, 32490), (227, 32514), (248, 32667), (263, 32733),

Gene: MichaelScott\_26 Start: 22391, Stop: 23428, Start Num: 38

Candidate Starts for MichaelScott\_26:

(10, 22220), (12, 22223), (Start: 38 @22391 has 19 MA's), (57, 22460), (59, 22466), (122, 22646), (127, 22667), (137, 22748), (143, 22775), (164, 22868), (195, 22976), (205, 23039), (213, 23114), (248, 23345),

Gene: MossRose\_29 Start: 28054, Stop: 29166, Start Num: 20

Candidate Starts for MossRose\_29:

(Start: 20 @28054 has 16 MA's), (45, 28168), (59, 28219), (63, 28228), (Start: 70 @28243 has 1 MA's), (74, 28258), (96, 28324), (129, 28438), (130, 28459), (137, 28510), (148, 28549), (157, 28573), (178, 28633), (198, 28735), (204, 28771), (205, 28786), (219, 28897), (222, 28915), (228, 28951),

Gene: MunkgeeRoachy\_25 Start: 20565, Stop: 21695, Start Num: 24

Candidate Starts for MunkgeeRoachy\_25:

(Start: 24 @20565 has 37 MA's), (25, 20583), (Start: 50 @20688 has 2 MA's), (112, 20886), (135, 21000), (137, 21018), (139, 21027), (153, 21081), (170, 21162), (179, 21174), (185, 21204), (209, 21354), (219, 21438), (223, 21456), (228, 21489), (234, 21537), (236, 21552), (254, 21648), (261, 21684),

Gene: Murp\_29 Start: 23645, Stop: 24622, Start Num: 56

Candidate Starts for Murp\_29:

(40, 23585), (Start: 56 @23645 has 8 MA's), (85, 23726), (Start: 94 @23759 has 1 MA's), (108, 23786), (118, 23825), (127, 23852), (134, 23909), (137, 23933), (191, 24146), (194, 24164), (195, 24167), (198, 24176), (205, 24230), (211, 24275), (219, 24344), (246, 24515), (248, 24536), (260, 24587),

Gene: NHagos\_27 Start: 26589, Stop: 27701, Start Num: 20

Candidate Starts for NHagos\_27:

(Start: 20 @26589 has 16 MA's), (33, 26658), (Start: 42 @26691 has 3 MA's), (45, 26703), (51, 26727), (59, 26754), (Start: 70 @26778 has 1 MA's), (74, 26793), (96, 26859), (129, 26973), (133, 27012), (157, 27111), (178, 27171), (192, 27246), (197, 27270), (198, 27273), (204, 27309), (205, 27324), (207, 27336), (211, 27369), (219, 27435), (228, 27489), (261, 27687),

Gene: Natkenzie\_37 Start: 33084, Stop: 34160, Start Num: 29

Candidate Starts for Natkenzie\_37:

(7, 32790), (19, 33018), (Start: 29 @33084 has 22 MA's), (60, 33192), (77, 33240), (84, 33258), (130, 33405), (132, 33417), (137, 33456), (148, 33495), (155, 33537), (169, 33603), (177, 33618), (184, 33645), (187, 33660), (205, 33771), (211, 33816), (213, 33846), (216, 33864), (219, 33885), (223, 33906), (227, 33930), (248, 34083), (263, 34149),

Gene: Nibbles\_27 Start: 21488, Stop: 22621, Start Num: 24

Candidate Starts for Nibbles\_27:

(Start: 24 @21488 has 37 MA's), (25, 21506), (Start: 50 @21611 has 2 MA's), (88, 21734), (93, 21749), (117, 21827), (122, 21839), (126, 21854), (135, 21923), (137, 21941), (142, 21965), (151, 22001), (170, 22082), (191, 22166), (219, 22358), (221, 22370), (223, 22382), (228, 22415), (232, 22454), (241, 22499), (261, 22610),

Gene: Nina\_26 Start: 21560, Stop: 22657, Start Num: 24

Candidate Starts for Nina\_26:

(Start: 24 @21560 has 37 MA's), (25, 21578), (Start: 50 @21683 has 2 MA's), (112, 21881), (137, 22013), (139, 22022), (143, 22040), (154, 22076), (179, 22136), (185, 22166), (209, 22316), (212, 22355), (219, 22400), (223, 22418), (227, 22442), (234, 22499), (244, 22559), (249, 22595), (257, 22625), (261, 22646),

Gene: Oregano\_26 Start: 22056, Stop: 23096, Start Num: 38

Candidate Starts for Oregano\_26:

(Start: 38 @22056 has 19 MA's), (57, 22125), (59, 22131), (122, 22311), (127, 22332), (129, 22341), (137, 22413), (143, 22440), (164, 22533), (195, 22641), (205, 22704), (219, 22818), (241, 22956), (248, 23013),

Gene: PCoral7\_29 Start: 23615, Stop: 24595, Start Num: 56

Candidate Starts for PCoral7\_29:

(40, 23555), (Start: 56 @23615 has 8 MA's), (Start: 94 @23726 has 1 MA's), (127, 23822), (133, 23870), (137, 23903), (143, 23930), (159, 23999), (164, 24023), (166, 24026), (191, 24116), (194, 24134), (195, 24137), (205, 24200), (213, 24275), (237, 24431), (248, 24506), (265, 24578), (266, 24587),

Gene: Petra\_30 Start: 23485, Stop: 24351, Start Num: 94

Candidate Starts for Petra\_30:

(40, 23311), (Start: 56 @23371 has 8 MA's), (85, 23452), (Start: 94 @23485 has 1 MA's), (108, 23512), (118, 23551), (127, 23578), (137, 23659), (143, 23686), (147, 23695), (159, 23755), (164, 23779), (166, 23782), (192, 23875), (194, 23890), (195, 23893), (205, 23956), (207, 23968), (211, 24001), (213, 24031), (237, 24187), (246, 24241), (248, 24262),

Gene: Phauci\_28 Start: 28099, Stop: 29187, Start Num: 29

Candidate Starts for Phauci\_28:

(Start: 29 @28099 has 22 MA's), (60, 28213), (69, 28234), (92, 28303), (97, 28315), (137, 28480), (148, 28519), (155, 28561), (177, 28642), (184, 28669), (187, 28684), (205, 28795), (211, 28840), (216, 28888), (219, 28909), (223, 28930), (227, 28954), (237, 29029), (248, 29107), (263, 29173),

Gene: Phinally\_35 Start: 31507, Stop: 32595, Start Num: 29

Candidate Starts for Phinally\_35:

(Start: 29 @31507 has 22 MA's), (60, 31621), (69, 31642), (92, 31711), (97, 31723), (137, 31888), (148, 31927), (155, 31969), (177, 32050), (184, 32077), (187, 32092), (198, 32149), (205, 32203), (211, 32248), (219, 32317), (223, 32338), (227, 32362), (237, 32437), (248, 32515), (263, 32581),

Gene: PhriskyACE\_25 Start: 21473, Stop: 22513, Start Num: 38

Candidate Starts for PhriskyACE\_25:

(Start: 38 @21473 has 19 MA's), (57, 21542), (59, 21548), (122, 21728), (137, 21830), (142, 21854), (143, 21857), (147, 21866), (166, 21953), (195, 22058), (203, 22097), (205, 22121), (211, 22166), (216, 22214), (217, 22223), (219, 22235), (222, 22250), (241, 22373), (248, 22430),

Gene: PinkCoffee\_35 Start: 28943, Stop: 30115, Start Num: 11

Candidate Starts for PinkCoffee\_35:

(Start: 11 @28943 has 15 MA's), (26, 29084), (32, 29102), (73, 29237), (92, 29303), (122, 29390), (137, 29492), (184, 29597), (205, 29723), (206, 29729), (219, 29837), (223, 29855), (260, 30080),

Gene: Portcullis\_33 Start: 28253, Stop: 29425, Start Num: 11

Candidate Starts for Portcullis\_33:

(Start: 11 @28253 has 15 MA's), (26, 28394), (32, 28412), (73, 28547), (92, 28613), (100, 28631), (114, 28682), (122, 28700), (137, 28802), (184, 28907), (205, 29033), (206, 29039), (219, 29147), (223, 29165), (260, 29390),

Gene: PotPie\_25 Start: 21139, Stop: 22131, Start Num: 55

Candidate Starts for PotPie\_25:

(Start: 55 @21139 has 7 MA's), (107, 21286), (116, 21328), (119, 21334), (121, 21337), (125, 21355), (133, 21412), (137, 21445), (167, 21574), (174, 21583), (191, 21652), (196, 21676), (205, 21736), (213, 21811), (223, 21871), (224, 21874), (241, 21991), (246, 22024), (251, 22060), (260, 22096), (261, 22102), (264, 22114),

Gene: PrincePatrick\_28 Start: 23694, Stop: 24674, Start Num: 56

Candidate Starts for PrincePatrick\_28:

(40, 23634), (Start: 56 @23694 has 8 MA's), (Start: 94 @23805 has 1 MA's), (127, 23901), (133, 23949), (137, 23982), (143, 24009), (147, 24018), (159, 24078), (164, 24102), (166, 24105), (191, 24195), (194, 24213), (195, 24216), (205, 24279), (213, 24354), (237, 24510), (248, 24585), (260, 24636),

Gene: PsychoKiller\_25 Start: 20517, Stop: 21614, Start Num: 24

Candidate Starts for PsychoKiller\_25:

(Start: 24 @20517 has 37 MA's), (25, 20535), (Start: 50 @20640 has 2 MA's), (112, 20838), (137, 20970), (139, 20979), (143, 20997), (154, 21033), (179, 21093), (185, 21123), (209, 21273), (212, 21312), (219, 21357), (223, 21375), (234, 21456), (244, 21516), (249, 21552), (257, 21582), (261, 21603),

Gene: Pumpkiney\_38 Start: 30407, Stop: 31483, Start Num: 29

Candidate Starts for Pumpkiney\_38:

(Start: 29 @30407 has 22 MA's), (60, 30515), (77, 30563), (84, 30581), (130, 30728), (132, 30740), (137, 30779), (148, 30818), (155, 30860), (169, 30926), (177, 30941), (184, 30968), (187, 30983), (198, 31040), (205, 31094), (211, 31139), (216, 31187), (219, 31208), (223, 31229), (227, 31253), (237, 31328), (248, 31406), (249, 31412), (263, 31472),

Gene: Quasar\_25 Start: 21126, Stop: 22223, Start Num: 24

Candidate Starts for Quasar\_25:

(Start: 24 @21126 has 37 MA's), (25, 21144), (Start: 50 @21249 has 2 MA's), (112, 21447), (135, 21561), (137, 21579), (139, 21588), (143, 21606), (154, 21642), (179, 21702), (185, 21732), (209, 21882), (212, 21921), (219, 21966), (223, 21984), (227, 22008), (234, 22065), (244, 22125), (249, 22161), (257, 22191), (261, 22212),

Gene: RADical\_26 Start: 20518, Stop: 21615, Start Num: 24

Candidate Starts for RADical\_26:

(Start: 24 @20518 has 37 MA's), (25, 20536), (Start: 50 @20641 has 2 MA's), (112, 20839), (135, 20953), (137, 20971), (139, 20980), (143, 20998), (154, 21034), (179, 21094), (185, 21124), (209, 21274), (212, 21313), (219, 21358), (223, 21376), (227, 21400), (234, 21457), (244, 21517), (249, 21553), (257, 21583), (261, 21604),

Gene: RSchmailzl\_26 Start: 20661, Stop: 21758, Start Num: 24

Candidate Starts for RSchmailzl\_26:

(Start: 24 @20661 has 37 MA's), (25, 20679), (Start: 50 @20784 has 2 MA's), (112, 20982), (137, 21114), (139, 21123), (141, 21135), (143, 21141), (154, 21177), (179, 21237), (209, 21417), (212, 21456), (219, 21501), (223, 21519), (227, 21543), (234, 21600), (244, 21660), (249, 21696), (257, 21726), (261, 21747),

Gene: RedBaron\_27 Start: 20561, Stop: 21658, Start Num: 24

Candidate Starts for RedBaron\_27:

(Start: 24 @20561 has 37 MA's), (25, 20579), (Start: 50 @20684 has 2 MA's), (112, 20882), (137, 21014), (139, 21023), (143, 21041), (154, 21077), (179, 21137), (209, 21317), (212, 21356), (219, 21401), (223, 21419), (227, 21443), (234, 21500), (244, 21560), (249, 21596), (257, 21626), (261, 21647),

Gene: Rizz\_29 Start: 22391, Stop: 23428, Start Num: 38

Candidate Starts for Rizz\_29:

(10, 22220), (12, 22223), (Start: 38 @22391 has 19 MA's), (57, 22460), (59, 22466), (122, 22646), (127, 22667), (137, 22748), (143, 22775), (164, 22868), (195, 22976), (205, 23039), (213, 23114), (248, 23345),

Gene: RogerDodger\_36 Start: 29082, Stop: 30254, Start Num: 11

Candidate Starts for RogerDodger\_36:

(Start: 11 @29082 has 15 MA's), (26, 29223), (32, 29241), (73, 29376), (92, 29442), (122, 29529), (137, 29631), (184, 29736), (205, 29862), (206, 29868), (219, 29976), (223, 29994), (260, 30219),

Gene: Samman98\_26 Start: 22025, Stop: 23065, Start Num: 38

Candidate Starts for Samman98\_26:

(Start: 38 @22025 has 19 MA's), (57, 22094), (59, 22100), (122, 22280), (137, 22382), (142, 22406), (143, 22409), (147, 22418), (166, 22505), (195, 22610), (203, 22649), (205, 22673), (211, 22718), (216, 22766), (217, 22775), (219, 22787), (222, 22802), (241, 22925), (248, 22982),

Gene: Sampson\_37 Start: 33029, Stop: 34105, Start Num: 29

Candidate Starts for Sampson\_37:

(7, 32735), (19, 32963), (Start: 29 @33029 has 22 MA's), (60, 33137), (77, 33185), (84, 33203), (130, 33350), (132, 33362), (137, 33401), (148, 33440), (155, 33482), (169, 33548), (177, 33563), (184, 33590), (187, 33605), (205, 33716), (211, 33761), (213, 33791), (216, 33809), (219, 33830), (223, 33851), (227, 33875), (248, 34028), (263, 34094),

Gene: Sapo\_25 Start: 21383, Stop: 22177, Start Num: 113

Candidate Starts for Sapo\_25:

(Start: 113 @21383 has 1 MA's), (126, 21425), (131, 21461), (149, 21551), (163, 21626), (165, 21629), (191, 21722), (213, 21878), (219, 21917), (242, 22055), (245, 22085), (247, 22094), (257, 22142),

Gene: Scioto\_37 Start: 33084, Stop: 34160, Start Num: 29

Candidate Starts for Scioto\_37:

(7, 32790), (19, 33018), (Start: 29 @33084 has 22 MA's), (60, 33192), (77, 33240), (84, 33258), (130, 33405), (132, 33417), (137, 33456), (148, 33495), (155, 33537), (169, 33603), (177, 33618), (184, 33645), (187, 33660), (205, 33771), (211, 33816), (213, 33846), (216, 33864), (219, 33885), (223,

33906), (227, 33930), (248, 34083), (263, 34149),

Gene: Sekhmet\_26 Start: 22385, Stop: 23425, Start Num: 38

Candidate Starts for Sekhmet\_26:

(Start: 38 @22385 has 19 MA's), (57, 22454), (59, 22460), (122, 22640), (137, 22742), (142, 22766), (143, 22769), (147, 22778), (166, 22865), (195, 22970), (203, 23009), (205, 23033), (211, 23078), (216, 23126), (217, 23135), (219, 23147), (222, 23162), (241, 23285), (248, 23342),

Gene: SharkTale\_33 Start: 29016, Stop: 30266, Start Num: 11

Candidate Starts for SharkTale\_33:

(Start: 11 @29016 has 15 MA's), (23, 29130), (32, 29175), (36, 29196), (81, 29340), (92, 29376), (122, 29463), (137, 29565), (143, 29592), (177, 29727), (184, 29754), (191, 29796), (192, 29799), (195, 29817), (207, 29892), (213, 29955), (219, 29994), (261, 30243),

Gene: Shatter\_27 Start: 26078, Stop: 27217, Start Num: 20

Candidate Starts for Shatter\_27:

(Start: 20 @26078 has 16 MA's), (22, 26087), (31, 26135), (41, 26174), (45, 26192), (66, 26261), (87, 26330), (90, 26339), (129, 26465), (137, 26537), (143, 26564), (144, 26567), (158, 26639), (180, 26693), (190, 26756), (196, 26783), (198, 26789), (205, 26840), (216, 26930), (248, 27143), (261, 27200), (262, 27206), (263, 27209),

Gene: SheckWes\_25 Start: 20283, Stop: 21275, Start Num: 55

Candidate Starts for SheckWes\_25:

(Start: 55 @20283 has 7 MA's), (107, 20430), (116, 20472), (121, 20481), (125, 20499), (133, 20556), (137, 20589), (148, 20628), (167, 20718), (174, 20727), (191, 20796), (196, 20820), (205, 20880), (213, 20955), (223, 21015), (224, 21018), (241, 21135), (246, 21168), (251, 21204), (260, 21240), (261, 21246), (264, 21258),

Gene: Shinji\_33 Start: 28194, Stop: 29366, Start Num: 11

Candidate Starts for Shinji\_33:

(Start: 11 @28194 has 15 MA's), (26, 28335), (32, 28353), (73, 28488), (92, 28554), (100, 28572), (114, 28623), (122, 28641), (137, 28743), (184, 28848), (205, 28974), (206, 28980), (219, 29088), (223, 29106), (260, 29331),

Gene: Shlim410\_26 Start: 22619, Stop: 23656, Start Num: 38

Candidate Starts for Shlim410\_26:

(Start: 38 @22619 has 19 MA's), (57, 22688), (59, 22694), (122, 22874), (127, 22895), (137, 22976), (143, 23003), (164, 23096), (195, 23204), (205, 23267), (213, 23342), (248, 23573),

Gene: Sixsevenium\_34 Start: 28127, Stop: 29377, Start Num: 11

Candidate Starts for Sixsevenium\_34:

(Start: 11 @28127 has 15 MA's), (23, 28241), (32, 28286), (36, 28307), (81, 28451), (92, 28487), (122, 28574), (137, 28676), (143, 28703), (177, 28838), (184, 28865), (191, 28907), (192, 28910), (195, 28928), (207, 29003), (213, 29066), (219, 29105), (261, 29354),

Gene: SketchMex\_24 Start: 20168, Stop: 21265, Start Num: 24

Candidate Starts for SketchMex\_24:

(17, 20099), (Start: 24 @20168 has 37 MA's), (25, 20186), (Start: 50 @20291 has 2 MA's), (114, 20498), (135, 20603), (137, 20621), (139, 20630), (153, 20684), (179, 20744), (202, 20873), (209, 20924), (219, 21008), (223, 21026), (228, 21059), (235, 21110), (236, 21122), (254, 21218), (261, 21254),

Gene: Socotra\_26 Start: 20517, Stop: 21614, Start Num: 24

Candidate Starts for Socotra\_26:

(Start: 24 @20517 has 37 MA's), (25, 20535), (Start: 50 @20640 has 2 MA's), (112, 20838), (135, 20952), (137, 20970), (139, 20979), (143, 20997), (154, 21033), (179, 21093), (185, 21123), (209, 21273), (212, 21312), (219, 21357), (223, 21375), (227, 21399), (234, 21456), (244, 21516), (249, 21552), (257, 21582), (261, 21603),

Gene: Sopespian\_25 Start: 20518, Stop: 21615, Start Num: 24

Candidate Starts for Sopespian\_25:

(Start: 24 @20518 has 37 MA's), (25, 20536), (Start: 50 @20641 has 2 MA's), (112, 20839), (137, 20971), (139, 20980), (143, 20998), (154, 21034), (179, 21094), (185, 21124), (209, 21274), (212, 21313), (219, 21358), (223, 21376), (227, 21400), (234, 21457), (244, 21517), (249, 21553), (257, 21583), (261, 21604),

Gene: Sour\_31 Start: 30307, Stop: 31437, Start Num: 18

Candidate Starts for Sour\_31:

(Start: 18 @30307 has 1 MA's), (34, 30400), (37, 30406), (64, 30496), (71, 30511), (97, 30577), (137, 30754), (159, 30850), (192, 30967), (195, 30985), (205, 31048), (217, 31150), (219, 31162), (222, 31177), (225, 31195), (236, 31276), (248, 31354), (260, 31405), (261, 31411),

Gene: Splinter\_29 Start: 22610, Stop: 23578, Start Num: 42

Candidate Starts for Splinter\_29:

(13, 22433), (33, 22577), (39, 22601), (Start: 42 @22610 has 3 MA's), (Start: 46 @22625 has 3 MA's), (98, 22796), (102, 22805), (121, 22865), (135, 22958), (137, 22976), (147, 23012), (148, 23015), (157, 23030), (197, 23138), (199, 23150), (207, 23216), (211, 23249), (219, 23312), (226, 23354), (227, 23360), (229, 23387), (230, 23390), (232, 23408), (233, 23411), (239, 23450), (242, 23456), (246, 23489), (261, 23567),

Gene: Starburst\_26 Start: 20518, Stop: 21615, Start Num: 24

Candidate Starts for Starburst\_26:

(Start: 24 @20518 has 37 MA's), (25, 20536), (Start: 50 @20641 has 2 MA's), (112, 20839), (135, 20953), (137, 20971), (139, 20980), (143, 20998), (154, 21034), (179, 21094), (185, 21124), (209, 21274), (212, 21313), (219, 21358), (223, 21376), (227, 21400), (234, 21457), (244, 21517), (249, 21553), (257, 21583), (261, 21604),

Gene: SteamedHams\_27 Start: 20181, Stop: 21269, Start Num: 24

Candidate Starts for SteamedHams\_27:

(23, 20178), (Start: 24 @20181 has 37 MA's), (25, 20199), (Start: 50 @20304 has 2 MA's), (88, 20427), (135, 20616), (137, 20634), (139, 20643), (141, 20655), (182, 20766), (191, 20820), (195, 20841), (209, 20928), (219, 21012), (223, 21030), (228, 21063), (236, 21126), (240, 21144), (241, 21147), (242, 21150), (249, 21207), (261, 21258),

Gene: SummitAcademy\_25 Start: 20359, Stop: 21351, Start Num: 55

Candidate Starts for SummitAcademy\_25:

(Start: 55 @20359 has 7 MA's), (107, 20506), (121, 20557), (125, 20575), (133, 20632), (137, 20665), (167, 20794), (174, 20803), (191, 20872), (196, 20896), (205, 20956), (213, 21031), (223, 21091), (224, 21094), (241, 21211), (246, 21244), (251, 21280), (260, 21316), (261, 21322), (264, 21334),

Gene: Survivors\_27 Start: 21337, Stop: 22437, Start Num: 24

Candidate Starts for Survivors\_27:

(Start: 24 @21337 has 37 MA's), (25, 21355), (Start: 50 @21460 has 2 MA's), (93, 21598), (117, 21676), (122, 21688), (126, 21703), (135, 21772), (137, 21790), (142, 21814), (191, 21982), (219, 22174), (222, 22195), (223, 22198), (228, 22231), (236, 22294), (240, 22312), (242, 22318), (261, 22426),

Gene: TZGordon\_31 Start: 22485, Stop: 23432, Start Num: 46

Candidate Starts for TZGordon\_31:

(Start: 46 @22485 has 3 MA's), (98, 22656), (121, 22725), (135, 22818), (137, 22836), (190, 22968), (193, 22983), (199, 23010), (207, 23073), (211, 23106), (214, 23139), (218, 23163), (233, 23268), (242, 23313), (246, 23343), (250, 23370), (252, 23379), (261, 23421),

Gene: Tardus\_38 Start: 32448, Stop: 33524, Start Num: 29

Candidate Starts for Tardus\_38:

(Start: 29 @32448 has 22 MA's), (60, 32556), (77, 32604), (84, 32622), (130, 32769), (132, 32781), (137, 32820), (148, 32859), (155, 32901), (169, 32967), (177, 32982), (184, 33009), (187, 33024), (198, 33081), (205, 33135), (211, 33180), (219, 33249), (223, 33270), (227, 33294), (237, 33369), (248, 33447), (263, 33513),

Gene: TinaLin\_31 Start: 22732, Stop: 23730, Start Num: 44

Candidate Starts for TinaLin\_31:

(43, 22729), (Start: 44 @22732 has 3 MA's), (90, 22879), (98, 22900), (115, 22957), (121, 22969), (137, 23080), (190, 23263), (205, 23356), (210, 23392), (211, 23401), (226, 23506), (227, 23512), (229, 23539), (230, 23542), (249, 23668), (255, 23686), (256, 23695), (261, 23719),

Gene: Toast\_29 Start: 23615, Stop: 24595, Start Num: 56

Candidate Starts for Toast\_29:

(40, 23555), (Start: 56 @23615 has 8 MA's), (Start: 94 @23726 has 1 MA's), (127, 23822), (133, 23870), (137, 23903), (143, 23930), (159, 23999), (164, 24023), (166, 24026), (191, 24116), (194, 24134), (195, 24137), (205, 24200), (213, 24275), (237, 24431), (248, 24506), (265, 24578), (266, 24587),

Gene: Tolls\_27 Start: 20184, Stop: 21263, Start Num: 24

Candidate Starts for Tolls\_27:

(23, 20181), (Start: 24 @20184 has 37 MA's), (25, 20202), (Start: 50 @20307 has 2 MA's), (88, 20430), (122, 20535), (135, 20619), (137, 20637), (142, 20661), (175, 20742), (182, 20760), (191, 20814), (209, 20922), (219, 21006), (223, 21024), (228, 21057), (236, 21120), (240, 21138), (241, 21141), (242, 21144), (249, 21201),

Gene: TraderJ\_29 Start: 28060, Stop: 29157, Start Num: 20

Candidate Starts for TraderJ\_29:

(Start: 20 @28060 has 16 MA's), (45, 28174), (63, 28234), (Start: 70 @28249 has 1 MA's), (74, 28264), (129, 28444), (133, 28483), (137, 28516), (157, 28573), (170, 28621), (178, 28633), (197, 28726), (198, 28729), (199, 28738), (204, 28765), (205, 28780), (206, 28786), (219, 28885), (220, 28891), (226, 28927), (249, 29089), (259, 29128),

Gene: Troje\_25 Start: 20150, Stop: 21247, Start Num: 24

Candidate Starts for Troje\_25:

(17, 20081), (Start: 24 @20150 has 37 MA's), (25, 20168), (Start: 50 @20273 has 2 MA's), (114, 20480), (135, 20585), (137, 20603), (139, 20612), (153, 20666), (179, 20726), (202, 20855), (209, 20906), (219, 20990), (223, 21008), (228, 21041), (235, 21092), (236, 21104), (254, 21200), (261, 21236),

Gene: Twinkle\_26 Start: 23678, Stop: 24715, Start Num: 38

Candidate Starts for Twinkle\_26:

(Start: 38 @23678 has 19 MA's), (57, 23747), (59, 23753), (122, 23933), (127, 23954), (137, 24035), (143, 24062), (164, 24155), (195, 24263), (205, 24326), (213, 24401), (248, 24632),

Gene: Twister6\_35 Start: 28645, Stop: 29817, Start Num: 11

Candidate Starts for Twister6\_35:

(Start: 11 @28645 has 15 MA's), (26, 28786), (32, 28804), (73, 28939), (92, 29005), (122, 29092), (137, 29194), (184, 29299), (205, 29425), (206, 29431), (219, 29539), (223, 29557), (260, 29782),

Gene: Typhonomachy\_25 Start: 20517, Stop: 21647, Start Num: 24

Candidate Starts for Typhonomachy\_25:

(Start: 24 @20517 has 37 MA's), (25, 20535), (Start: 50 @20640 has 2 MA's), (112, 20838), (135, 20952), (137, 20970), (139, 20979), (153, 21033), (170, 21114), (179, 21126), (186, 21159), (209, 21306), (212, 21345), (219, 21390), (223, 21408), (227, 21432), (234, 21489), (244, 21549), (249, 21585), (257, 21615), (261, 21636),

Gene: VanDeWege\_36 Start: 28981, Stop: 30153, Start Num: 11

Candidate Starts for VanDeWege\_36:

(Start: 11 @28981 has 15 MA's), (32, 29140), (73, 29275), (92, 29341), (122, 29428), (137, 29530), (184, 29635), (205, 29761), (206, 29767), (219, 29875), (223, 29893), (260, 30118),

Gene: Vendetta\_29 Start: 22610, Stop: 23578, Start Num: 42

Candidate Starts for Vendetta\_29:

(13, 22433), (33, 22577), (39, 22601), (Start: 42 @22610 has 3 MA's), (Start: 46 @22625 has 3 MA's), (102, 22805), (121, 22865), (135, 22958), (137, 22976), (147, 23012), (148, 23015), (157, 23030), (197, 23138), (199, 23150), (207, 23216), (211, 23249), (219, 23312), (226, 23354), (227, 23360), (229, 23387), (230, 23390), (232, 23408), (233, 23411), (239, 23450), (242, 23456), (246, 23489), (261, 23567),

Gene: Verity\_36 Start: 33271, Stop: 34347, Start Num: 29

Candidate Starts for Verity\_36:

(Start: 29 @33271 has 22 MA's), (60, 33379), (76, 33424), (84, 33445), (130, 33592), (137, 33643), (148, 33682), (155, 33724), (169, 33790), (177, 33805), (184, 33832), (187, 33847), (198, 33904), (205, 33958), (206, 33964), (211, 34003), (219, 34072), (223, 34093), (227, 34117), (237, 34192), (248, 34270), (263, 34336),

Gene: ViaConlectus\_37 Start: 31720, Stop: 32796, Start Num: 29

Candidate Starts for ViaConlectus\_37:

(7, 31426), (19, 31654), (Start: 29 @31720 has 22 MA's), (60, 31828), (77, 31876), (84, 31894), (130, 32041), (132, 32053), (137, 32092), (148, 32131), (155, 32173), (169, 32239), (177, 32254), (184, 32281), (187, 32296), (205, 32407), (211, 32452), (213, 32482), (216, 32500), (219, 32521), (227, 32566), (248, 32719), (263, 32785),

Gene: Vine\_26 Start: 21286, Stop: 22272, Start Num: 55

Candidate Starts for Vine\_26:

(Start: 55 @21286 has 7 MA's), (116, 21475), (137, 21592), (167, 21721), (174, 21730), (191, 21799), (196, 21823), (205, 21883), (213, 21958), (223, 22018), (224, 22021), (246, 22168), (251, 22204), (260, 22240), (264, 22258),

Gene: Wallaby\_29 Start: 21481, Stop: 22581, Start Num: 24

Candidate Starts for Wallaby\_29:

(Start: 24 @21481 has 37 MA's), (25, 21499), (Start: 50 @21604 has 2 MA's), (93, 21742), (117, 21820), (122, 21832), (135, 21916), (137, 21934), (142, 21958), (191, 22126), (219, 22318), (222, 22339), (223, 22342), (228, 22375), (236, 22438), (240, 22456), (242, 22462), (261, 22570),

Gene: William\_29 Start: 23441, Stop: 24427, Start Num: 56

Candidate Starts for William\_29:

(40, 23381), (Start: 56 @23441 has 8 MA's), (79, 23504), (Start: 94 @23552 has 1 MA's), (127, 23648), (137, 23729), (138, 23732), (143, 23756), (159, 23825), (166, 23852), (194, 23960), (195, 23963), (205, 24026), (207, 24038), (213, 24101), (227, 24182), (230, 24212), (248, 24332),

Gene: WinkNick\_26 Start: 22010, Stop: 23047, Start Num: 38

Candidate Starts for WinkNick\_26:

(10, 21839), (12, 21842), (Start: 38 @22010 has 19 MA's), (57, 22079), (59, 22085), (122, 22265), (127, 22286), (137, 22367), (143, 22394), (164, 22487), (195, 22595), (205, 22658), (213, 22733), (248, 22964),

Gene: Wocket\_30 Start: 24063, Stop: 25040, Start Num: 56

Candidate Starts for Wocket\_30:

(40, 24003), (Start: 56 @24063 has 8 MA's), (85, 24144), (Start: 94 @24177 has 1 MA's), (108, 24204), (127, 24270), (134, 24327), (137, 24351), (194, 24582), (195, 24585), (205, 24648), (211, 24693), (219, 24762), (248, 24954), (260, 25005),

Gene: Wolfwood\_27 Start: 21481, Stop: 22581, Start Num: 24

Candidate Starts for Wolfwood\_27:

(Start: 24 @21481 has 37 MA's), (25, 21499), (Start: 50 @21604 has 2 MA's), (93, 21742), (117, 21820), (122, 21832), (135, 21916), (137, 21934), (142, 21958), (191, 22126), (219, 22318), (222, 22339), (223, 22342), (228, 22375), (236, 22438), (240, 22456), (242, 22462), (261, 22570),

Gene: Wooper\_29 Start: 28066, Stop: 29163, Start Num: 20

Candidate Starts for Wooper\_29:

(Start: 20 @28066 has 16 MA's), (45, 28180), (63, 28240), (Start: 70 @28255 has 1 MA's), (74, 28270), (129, 28450), (133, 28489), (137, 28522), (157, 28579), (170, 28627), (178, 28639), (197, 28732), (198, 28735), (199, 28744), (204, 28771), (205, 28786), (206, 28792), (219, 28891), (220, 28897), (228, 28948), (230, 28969), (238, 29014), (259, 29134),

Gene: Yarn\_24 Start: 20174, Stop: 21286, Start Num: 24

Candidate Starts for Yarn\_24:

(Start: 24 @20174 has 37 MA's), (25, 20192), (Start: 50 @20297 has 2 MA's), (88, 20420), (135, 20609), (137, 20627), (139, 20636), (141, 20648), (171, 20753), (191, 20837), (209, 20945), (219, 21029), (223, 21047), (228, 21080), (236, 21143), (240, 21161), (241, 21164), (242, 21167), (249, 21224),

Gene: Yeshua\_29 Start: 28043, Stop: 29140, Start Num: 20

Candidate Starts for Yeshua\_29:

(Start: 20 @28043 has 16 MA's), (45, 28157), (63, 28217), (Start: 70 @28232 has 1 MA's), (74, 28247), (129, 28427), (133, 28466), (137, 28499), (157, 28556), (170, 28604), (178, 28616), (197, 28709), (198, 28712), (199, 28721), (204, 28748), (205, 28763), (206, 28769), (219, 28868), (220, 28874), (228, 28925), (230, 28946), (238, 28991), (259, 29111),

Gene: Yucky\_25 Start: 21145, Stop: 22131, Start Num: 55

Candidate Starts for Yucky\_25:

(Start: 55 @21145 has 7 MA's), (116, 21334), (137, 21451), (142, 21475), (166, 21574), (168, 21580), (191, 21658), (192, 21661), (196, 21682), (205, 21742), (213, 21817), (218, 21850), (227, 21901), (241, 21994), (260, 22099), (264, 22117),

Gene: Yummy\_26 Start: 20064, Stop: 21200, Start Num: 24

Candidate Starts for Yummy\_26:

(17, 19995), (Start: 24 @20064 has 37 MA's), (25, 20082), (Start: 50 @20187 has 2 MA's), (135, 20499), (137, 20517), (139, 20526), (145, 20550), (152, 20577), (179, 20679), (202, 20808), (209,

20859), (211, 20880), (219, 20943), (223, 20961), (228, 20994), (236, 21057), (254, 21153),

Gene: YungMoney\_35 Start: 29700, Stop: 30950, Start Num: 11

Candidate Starts for YungMoney\_35:

(Start: 11 @29700 has 15 MA's), (23, 29814), (32, 29859), (36, 29880), (81, 30024), (92, 30060), (122, 30147), (137, 30249), (143, 30276), (159, 30357), (191, 30480), (192, 30483), (195, 30501), (206, 30570), (219, 30678),

Gene: Zareef\_27 Start: 21489, Stop: 22589, Start Num: 24

Candidate Starts for Zareef\_27:

(Start: 24 @21489 has 37 MA's), (25, 21507), (Start: 50 @21612 has 2 MA's), (93, 21750), (117, 21828), (122, 21840), (126, 21855), (135, 21924), (137, 21942), (142, 21966), (191, 22134), (219, 22326), (222, 22347), (223, 22350), (228, 22383), (236, 22446), (240, 22464), (242, 22470), (261, 22578),

Gene: Zipp\_36 Start: 33174, Stop: 34250, Start Num: 29

Candidate Starts for Zipp\_36:

(Start: 29 @33174 has 22 MA's), (60, 33282), (77, 33330), (84, 33348), (130, 33495), (132, 33507), (137, 33546), (148, 33585), (155, 33627), (169, 33693), (177, 33708), (184, 33735), (187, 33750), (198, 33807), (205, 33861), (211, 33906), (219, 33975), (223, 33996), (227, 34020), (237, 34095), (248, 34173), (263, 34239),

Gene: Zitch\_38 Start: 31061, Stop: 32053, Start Num: 29

Candidate Starts for Zitch\_38:

(Start: 29 @31061 has 22 MA's), (60, 31169), (77, 31217), (84, 31235), (130, 31382), (132, 31394), (135, 31415), (137, 31433), (184, 31538), (198, 31610), (205, 31664), (211, 31709), (219, 31778), (223, 31799), (227, 31823), (237, 31898), (248, 31976), (263, 32042),