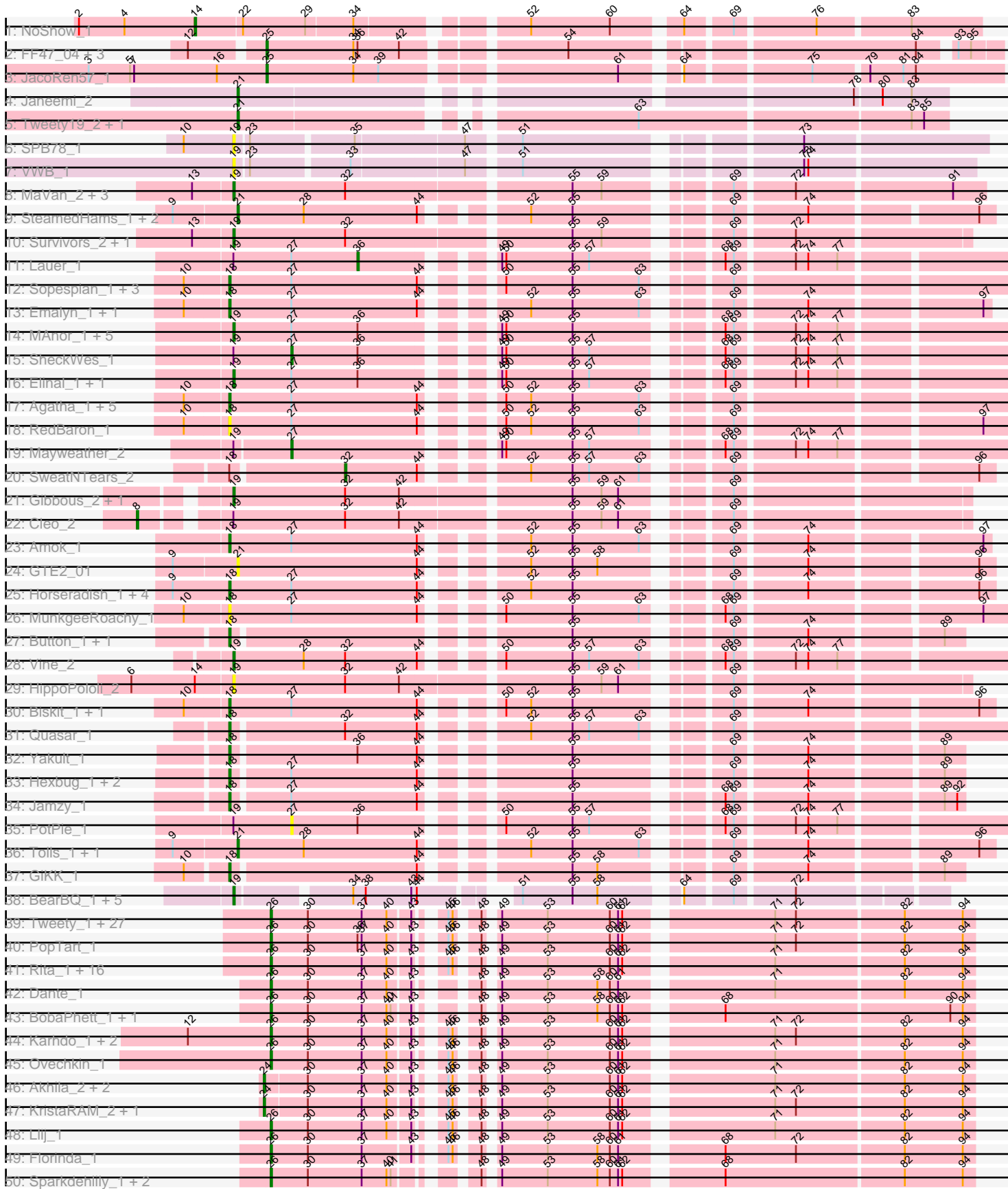
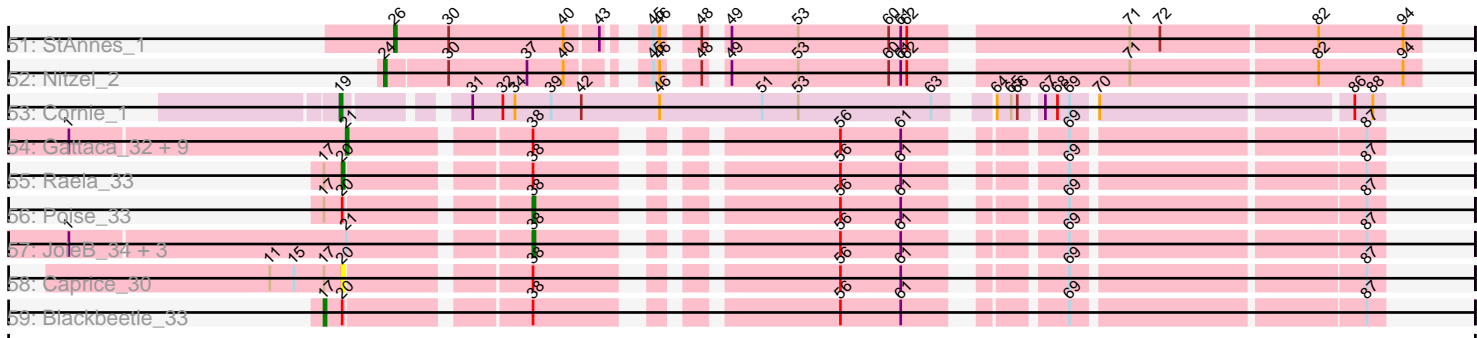


Pham 161646



Pham 161646



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 161646 Report

This analysis was run 04/28/24 on database version 559.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 161646 has 162 members, 21 are drafts.

Phages represented in each track:

- Track 1 : NoShow_1
- Track 2 : FF47_04, Muddy_4, 8UZL_4, Maco6_2
- Track 3 : JacoRen57_1
- Track 4 : Janeemi_2
- Track 5 : Tweety19_2, Snek_2
- Track 6 : SPB78_1
- Track 7 : VWB_1
- Track 8 : MaVan_2, Azira_2, Zareef_2, Nibbles_2
- Track 9 : SteamedHams_1, AndPeggy_1, BillDoor_1
- Track 10 : Survivors_2, Fribs8_2
- Track 11 : Lauer_1
- Track 12 : Sopespian_1, PsychoKiller_1, Burnsey_1, Elliott_1
- Track 13 : Emalyn_1, AikoCarson_1
- Track 14 : MAnor_1, BigChungus_1, Feastonyeet_1, SummitAcademy_1, Pons_1, CherryonLim_1
- Track 15 : SheckWes_1
- Track 16 : Elinal_1, KayGee_1
- Track 17 : Agatha_1, Nina_1, Cozz_1, Typhonomachy_1, GoldHunter_1, Axym_1
- Track 18 : RedBaron_1
- Track 19 : Mayweather_2
- Track 20 : SweatNTears_2
- Track 21 : Gibbous_2, Dre3_2
- Track 22 : Cleo_2
- Track 23 : Amok_1
- Track 24 : GTE2_01
- Track 25 : Horseradish_1, MScarn_1, Troje_1, Buttrmlkdreams_1, Yummy_1
- Track 26 : MunkgeeRoachy_1
- Track 27 : Button_1, Margaret_1
- Track 28 : Vine_2
- Track 29 : HippoPololi_2
- Track 30 : Biskit_1, SketchMex_1
- Track 31 : Quasar_1
- Track 32 : Yakult_1

- Track 33 : Hexbug_1, Orla_1, Nodigi_1
- Track 34 : Jamzy_1
- Track 35 : PotPie_1
- Track 36 : Tolls_1, Yarn_1
- Track 37 : GiKK_1
- Track 38 : BearBQ_1, MortyNRick_1, Kuwabara_1, Crater_1, Apricot_1, Birdsong_1
- Track 39 : Tweety_1, DotProduct_1, XFactor_1, Zizzle_1, DeadP_1, Gandalph_1, Hamulus_1, SuperGrey_1, Bipolar_1, SG4_1, Melissauren88_1, Mantra_1, ShroomBoi_1, Bubbles123_1, Emma_1, Fruitloop_1, Blexus_1, GigiOuiOui_1, Wee_1, SassyB_1, Aubs_1, Mutaforma13_1, Phanphagia_1, Hades_1, Chuckly_1, DLane_1, Royals2015_1, Shauna1_1
- Track 40 : PopTart_1
- Track 41 : Rita_1, Firehouse51_1, Sandalphon_1, QuickMath_1, Phasih_1, Taj_1, Sabbb_1, MadMen_1, Ardmore_1, EleanorGeorge_1, DillTech15_1, Rockne_1, Batiatus_1, Donkeykong_1, Filuzino_1, PMC_1, Whatsapiecost_1
- Track 42 : Dante_1
- Track 43 : BobaPhett_1, James_1
- Track 44 : Karhdo_1, Veteran_1, GUmbie_1
- Track 45 : Ovechkin_1
- Track 46 : Akhila_2, MilleniumForce_2, MilanaBonita_2
- Track 47 : KristaRAM_2, CaptainTrips_2
- Track 48 : Llij_1
- Track 49 : Florinda_1
- Track 50 : Sparkdehlily_1, TDanisky_1, DRBy19_1
- Track 51 : StAnnes_1
- Track 52 : Nitzel_2
- Track 53 : Cornie_1
- Track 54 : Gattaca_32, Corazon_31, RedRaider77_33, Huphlepuuff_35, Tesla_32, Pringar_33, Lilbit_34, LittleLaf_33, VasuNzinga_33, Clarkson_34
- Track 55 : Raela_33
- Track 56 : Poise_33
- Track 57 : JoieB_34, Marvin_31, MosMoris_31, Beelzebub_37
- Track 58 : Caprice_30
- Track 59 : Blackbeetle_33

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

The start number called the most often in the published annotations is 26, it was called in 58 of the 141 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ardmore_1, Aubs_1, Batiatus_1, Bipolar_1, Blexus_1, BobaPhett_1, Bubbles123_1, Chuckly_1, DLane_1, DRBy19_1, Dante_1, DeadP_1, DillTech15_1, Donkeykong_1, DotProduct_1, EleanorGeorge_1, Emma_1, Filuzino_1, Firehouse51_1, Florinda_1, Fruitloop_1, GUmbie_1, Gandalph_1, GigiOuiOui_1, Hades_1, Hamulus_1, James_1, Karhdo_1, Llij_1, MadMen_1, Mantra_1, Melissauren88_1, Mutaforma13_1, Ovechkin_1, PMC_1, Phanphagia_1, Phasih_1, PopTart_1, QuickMath_1, Rita_1, Rockne_1, Royals2015_1, SG4_1, Sabbb_1, Sandalphon_1, SassyB_1, Shauna1_1, ShroomBoi_1, Sparkdehlily_1, StAnnes_1, SuperGrey_1, TDanisky_1, Taj_1, Tweety_1, Veteran_1, Wee_1, Whatsapiecost_1, XFactor_1, Zizzle_1,

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

-

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

- 8UZL_4, Agatha_1, AikoCarson_1, Akhila_2, Amok_1, AndPeggy_1, Apricot_1, Axym_1, Azira_2, BearBQ_1, Beelzebub_37, BigChungus_1, BillDoor_1, Birdsong_1, Biskit_1, Blackbeetle_33, Burnsey_1, Button_1, Buttrmilkdreams_1, Caprice_30, CaptainTrips_2, CherryonLim_1, Clarkson_34, Cleo_2, Corazon_31, Cornie_1, Cozz_1, Crater_1, Dre3_2, Elinal_1, Elliott_1, Emalyn_1, FF47_04, Feastonyeet_1, Fribs8_2, GTE2_01, Gattaca_32, GiKK_1, Gibbous_2, GoldHunter_1, Hexbug_1, HippoPololi_2, Horseradish_1, Huphlepuuff_35, JacoRen57_1, Jamzy_1, Janeemi_2, JoieB_34, KayGee_1, KristaRAM_2, Kuwabara_1, Lauer_1, Lilbit_34, LittleLaf_33, MAnor_1, MScarn_1, MaVan_2, Maco6_2, Margaret_1, Marvin_31, Mayweather_2, MilanaBonita_2, MilleniumForce_2, MortyNRick_1, MosMoris_31, Muddy_4, MunkgeeRoachy_1, Nibbles_2, Nina_1, Nitzel_2, NoShow_1, Nodigi_1, Orla_1, Poise_33, Pons_1, PotPie_1, Pringar_33, PsychoKiller_1, Quasar_1, Raela_33, RedBaron_1, RedRaider77_33, SPB78_1, SheckWes_1, SketchMex_1, Snek_2, Sopespian_1, SteamedHams_1, SummitAcademy_1, Survivors_2, SweatNTears_2, Tesla_32, Tolls_1, Troje_1, Tweety19_2, Typhonmarchy_1, VWB_1, VasuNzinga_33, Vine_2, Yakult_1, Yarn_1, Yummy_1, Zareef_2,

Summary by start number:

Start 8:

- Found in 1 of 162 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 141
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cleo_2 (CT),

Start 14:

- Found in 2 of 162 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 141
- Called 50.0% of time when present
- Phage (with cluster) where this start called: NoShow_1 (AB),

Start 17:

- Found in 4 of 162 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 141
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Blackbeetle_33 (S),

Start 18:

- Found in 32 of 162 (19.8%) of genes in pham
- Manual Annotations of this start: 24 of 141
- Called 96.9% of time when present
- Phage (with cluster) where this start called: Agatha_1 (CT), AikoCarson_1 (CT), Amok_1 (CT), Axym_1 (CT), Biskit_1 (CT), Burnsey_1 (CT), Button_1 (CT), Buttrmilkdreams_1 (CT), Cozz_1 (CT), Elliott_1 (CT), Emalyn_1 (CT), GiKK_1 (CT), GoldHunter_1 (CT), Hexbug_1 (CT), Horseradish_1 (CT), Jamzy_1 (CT), MScarn_1 (CT), Margaret_1 (CT), MunkgeeRoachy_1 (CT), Nina_1 (CT), Nodigi_1 (CT), Orla_1 (CT), PsychoKiller_1 (CT), Quasar_1 (CT), RedBaron_1 (CT), SketchMex_1 (CT), Sopespian_1 (CT), Troje_1 (CT), Typhonmarchy_1 (CT), Yakult_1 (CT), Yummy_1

(CT),

Start 19:

- Found in 32 of 162 (19.8%) of genes in pham
- Manual Annotations of this start: 20 of 141
- Called 84.4% of time when present
- Phage (with cluster) where this start called: Apricot_1 (DN3), Azira_2 (CT), BearBQ_1 (DN), BigChungus_1 (CT), Birdsong_1 (DN), CherryonLim_1 (CT), Cornie_1 (F5), Crater_1 (DN3), Dre3_2 (CT), Elinal_1 (CT), Feastonyeet_1 (CT), Fribs8_2 (CT), Gibbous_2 (CT), HippoPololi_2 (CT), KayGee_1 (CT), Kuwabara_1 (DN4), MAnor_1 (CT), MaVan_2 (CT), MortyNRick_1 (DN), Nibbles_2 (CT), Pons_1 (CT), SPB78_1 (BA), SummitAcademy_1 (CT), Survivors_2 (CT), VWB_1 (BA), Vine_2 (CT), Zareef_2 (CT),

Start 20:

- Found in 4 of 162 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 141
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Caprice_30 (S), Raela_33 (S),

Start 21:

- Found in 23 of 162 (14.2%) of genes in pham
- Manual Annotations of this start: 17 of 141
- Called 82.6% of time when present
- Phage (with cluster) where this start called: AndPeggy_1 (CT), BillDoor_1 (CT), Clarkson_34 (S), Corazon_31 (S), GTE2_01 (CT), Gattaca_32 (S), Huphlepuuff_35 (S), Janeemi_2 (AZ1), Lilbit_34 (S), LittleLaf_33 (S), Pringar_33 (S), RedRaider77_33 (S), Sneak_2 (AZ3), SteamedHams_1 (CT), Tesla_32 (S), Tolls_1 (CT), Tweety19_2 (AZ3), VasuNzinga_33 (S), Yarn_1 (CT),

Start 24:

- Found in 6 of 162 (3.7%) of genes in pham
- Manual Annotations of this start: 6 of 141
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akhila_2 (F1), CaptainTrips_2 (F1), KristaRAM_2 (F1), MilanaBonita_2 (F1), MilleniumForce_2 (F1), Nitzel_2 (F1),

Start 25:

- Found in 5 of 162 (3.1%) of genes in pham
- Manual Annotations of this start: 3 of 141
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 8UZL_4 (AB), FF47_04 (AB), JacoRen57_1 (AB), Maco6_2 (AB), Muddy_4 (AB),

Start 26:

- Found in 59 of 162 (36.4%) of genes in pham
- Manual Annotations of this start: 58 of 141
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ardmore_1 (F1), Aubs_1 (F1), Batiatus_1 (F1), Bipolar_1 (F1), Blexus_1 (F1), BobaPhett_1 (F1), Bubbles123_1 (F1), Chuckly_1 (F1), DLane_1 (F1), DRBy19_1 (F1), Dante_1 (F1), DeadP_1 (F1), DillTech15_1 (F1), Donkeykong_1 (F1), DotProduct_1 (F1), EleanorGeorge_1 (F1), Emma_1 (F1), Filuzino_1 (F1), Firehouse51_1 (F1), Florinda_1 (F1), Fruitloop_1

(F1), GUmbie_1 (F1), Gandalph_1 (F1), GigiOuiOui_1 (F1), Hades_1 (F1), Hamulus_1 (F1), James_1 (F1), Karhdo_1 (F1), Llij_1 (F1), MadMen_1 (F1), Mantra_1 (F1), Melissauren88_1 (F1), Mutaforma13_1 (F1), Ovechkin_1 (F1), PMC_1 (F1), Phanphagia_1 (F1), Phasih_1 (F1), PopTart_1 (F1), QuickMath_1 (F1), Rita_1 (F1), Rockne_1 (F1), Royals2015_1 (F1), SG4_1 (F1), Sabbb_1 (F1), Sandalphon_1 (F1), SassyB_1 (F1), Shauna1_1 (F1), ShroomBoi_1 (F1), Sparkdehlily_1 (F1), StAnnes_1 (F1), SuperGrey_1 (F1), TDanisky_1 (F1), Taj_1 (F1), Tweety_1 (F1), Veteran_1 (F1), Wee_1 (F1), Whatsapiecost_1 (F1), XFactor_1 (F1), Zizzle_1 (F1),

Start 27:

- Found in 38 of 162 (23.5%) of genes in pham
- Manual Annotations of this start: 2 of 141
- Called 7.9% of time when present
- Phage (with cluster) where this start called: Mayweather_2 (CT), PotPie_1 (CT), SheckWes_1 (CT),

Start 32:

- Found in 14 of 162 (8.6%) of genes in pham
- Manual Annotations of this start: 1 of 141
- Called 7.1% of time when present
- Phage (with cluster) where this start called: SweatNTears_2 (CT),

Start 36:

- Found in 17 of 162 (10.5%) of genes in pham
- Manual Annotations of this start: 1 of 141
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Lauer_1 (CT),

Start 38:

- Found in 24 of 162 (14.8%) of genes in pham
- Manual Annotations of this start: 5 of 141
- Called 20.8% of time when present
- Phage (with cluster) where this start called: Beelzebub_37 (S), JoieB_34 (S), Marvin_31 (S), MosMoris_31 (S), Poise_33 (S),

Summary by clusters:

There are 11 clusters represented in this pham: DN, F1, AB, BA, F5, DN4, S, DN3, AZ1, AZ3, CT,

Info for manual annotations of cluster AB:

- Start number 14 was manually annotated 1 time for cluster AB.
- Start number 25 was manually annotated 3 times for cluster AB.

Info for manual annotations of cluster AZ1:

- Start number 21 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 21 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster CT:

- Start number 8 was manually annotated 1 time for cluster CT.
- Start number 18 was manually annotated 24 times for cluster CT.
- Start number 19 was manually annotated 14 times for cluster CT.
- Start number 21 was manually annotated 5 times for cluster CT.
- Start number 27 was manually annotated 2 times for cluster CT.
- Start number 32 was manually annotated 1 time for cluster CT.
- Start number 36 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster DN:

- Start number 19 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN3:

- Start number 19 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 19 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster F1:

- Start number 24 was manually annotated 6 times for cluster F1.
- Start number 26 was manually annotated 58 times for cluster F1.

Info for manual annotations of cluster F5:

- Start number 19 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster S:

- Start number 17 was manually annotated 1 time for cluster S.
- Start number 20 was manually annotated 1 time for cluster S.
- Start number 21 was manually annotated 9 times for cluster S.
- Start number 38 was manually annotated 5 times for cluster S.

Gene Information:

Gene: 8UZL_4 Start: 1322, Stop: 1795, Start Num: 25

Candidate Starts for 8UZL_4:

(12, 1274), (Start: 25 @1322 has 3 MA's), (34, 1385), (Start: 36 @1388 has 1 MA's), (42, 1418), (54, 1520), (84, 1745), (93, 1766), (95, 1775),

Gene: Agatha_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Agatha_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (63, 319), (69, 364),

Gene: AikoCarson_1 Start: 52, Stop: 531, Start Num: 18

Candidate Starts for AikoCarson_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (52, 241), (55, 271), (63, 319), (69, 364), (74, 412), (97, 526),

Gene: Akhila_2 Start: 754, Stop: 1212, Start Num: 24

Candidate Starts for Akhila_2:

(Start: 24 @754 has 6 MA's), (30, 784), (37, 823), (40, 841), (43, 856), (45, 868), (46, 871), (48, 883), (49, 889), (53, 922), (60, 967), (61, 973), (62, 976), (71, 1072), (82, 1162), (94, 1204),

Gene: Amok_1 Start: 53, Stop: 532, Start Num: 18

Candidate Starts for Amok_1:

(Start: 18 @53 has 24 MA's), (Start: 27 @98 has 2 MA's), (44, 188), (52, 242), (55, 272), (63, 320), (69, 365), (74, 413), (97, 527),

Gene: AndPeggy_1 Start: 59, Stop: 535, Start Num: 21

Candidate Starts for AndPeggy_1:

(9, 14), (Start: 21 @59 has 17 MA's), (28, 107), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: Apricot_1 Start: 50, Stop: 484, Start Num: 19

Candidate Starts for Apricot_1:

(Start: 19 @50 has 20 MA's), (34, 125), (Start: 38 @134 has 5 MA's), (43, 167), (44, 170), (51, 218), (55, 254), (58, 272), (64, 317), (69, 347), (72, 386),

Gene: Ardmore_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Ardmore_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Aubs_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Aubs_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Axym_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Axym_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (63, 319), (69, 364),

Gene: Azira_2 Start: 425, Stop: 922, Start Num: 19

Candidate Starts for Azira_2:

(13, 398), (Start: 19 @425 has 20 MA's), (Start: 32 @506 has 1 MA's), (55, 659), (59, 680), (69, 752), (72, 791), (91, 899),

Gene: Batiatus_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Batiatus_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: BearBQ_1 Start: 50, Stop: 484, Start Num: 19

Candidate Starts for BearBQ_1:

(Start: 19 @50 has 20 MA's), (34, 125), (Start: 38 @134 has 5 MA's), (43, 167), (44, 170), (51, 218), (55, 254), (58, 272), (64, 317), (69, 347), (72, 386),

Gene: Beelzebub_37 Start: 10803, Stop: 11156, Start Num: 38

Candidate Starts for Beelzebub_37:

(1, 10587), (Start: 21 @10722 has 17 MA's), (Start: 38 @10803 has 5 MA's), (56, 10923), (61, 10953), (69, 11013), (87, 11148),

Gene: BigChungus_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for BigChungus_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: BillDoor_1 Start: 59, Stop: 535, Start Num: 21

Candidate Starts for BillDoor_1:

(9, 14), (Start: 21 @59 has 17 MA's), (28, 107), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: Bipolar_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Bipolar_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Birdsong_1 Start: 50, Stop: 484, Start Num: 19

Candidate Starts for Birdsong_1:

(Start: 19 @50 has 20 MA's), (34, 125), (Start: 38 @134 has 5 MA's), (43, 167), (44, 170), (51, 218), (55, 254), (58, 272), (64, 317), (69, 347), (72, 386),

Gene: Biskit_1 Start: 52, Stop: 534, Start Num: 18

Candidate Starts for Biskit_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (69, 364), (74, 412), (96, 523),

Gene: Blackbeetle_33 Start: 9732, Stop: 10175, Start Num: 17

Candidate Starts for Blackbeetle_33:

(Start: 17 @9732 has 1 MA's), (Start: 20 @9741 has 1 MA's), (Start: 38 @9822 has 5 MA's), (56, 9942), (61, 9972), (69, 10032), (87, 10167),

Gene: Blexus_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Blexus_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: BobaPhett_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for BobaPhett_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (41, 196), (43, 208), (48, 235), (49, 241), (53, 274), (58, 310), (60, 319), (61, 325), (62, 328), (68, 388), (90, 547), (94, 556),

Gene: Bubbles123_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Bubbles123_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Burnsey_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Burnsey_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (55, 271), (63, 319), (69, 364),

Gene: Button_1 Start: 50, Stop: 505, Start Num: 18

Candidate Starts for Button_1:

(Start: 18 @50 has 24 MA's), (55, 263), (69, 356), (74, 404), (89, 491),

Gene: Buttrmilkdreams_1 Start: 53, Stop: 535, Start Num: 18

Candidate Starts for Buttrmlkdreams_1:

(9, 14), (Start: 18 @53 has 24 MA's), (Start: 27 @98 has 2 MA's), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: Caprice_30 Start: 9811, Stop: 10245, Start Num: 20

Candidate Starts for Caprice_30:

(11, 9775), (15, 9787), (Start: 17 @9802 has 1 MA's), (Start: 20 @9811 has 1 MA's), (Start: 38 @9892 has 5 MA's), (56, 10012), (61, 10042), (69, 10102), (87, 10237),

Gene: CaptainTrips_2 Start: 754, Stop: 1212, Start Num: 24

Candidate Starts for CaptainTrips_2:

(Start: 24 @754 has 6 MA's), (30, 784), (37, 823), (40, 841), (43, 856), (45, 868), (46, 871), (48, 883), (49, 889), (53, 922), (60, 967), (61, 973), (62, 976), (71, 1072), (72, 1087), (82, 1162), (94, 1204),

Gene: CherryonLim_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for CherryonLim_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: Chuckly_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Chuckly_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Clarkson_34 Start: 10423, Stop: 10857, Start Num: 21

Candidate Starts for Clarkson_34:

(1, 10288), (Start: 21 @10423 has 17 MA's), (Start: 38 @10504 has 5 MA's), (56, 10624), (61, 10654), (69, 10714), (87, 10849),

Gene: Cleo_2 Start: 447, Stop: 983, Start Num: 8

Candidate Starts for Cleo_2:

(Start: 8 @447 has 1 MA's), (Start: 19 @498 has 20 MA's), (Start: 32 @579 has 1 MA's), (42, 618), (55, 732), (59, 753), (61, 765), (69, 825),

Gene: Corazon_31 Start: 10376, Stop: 10810, Start Num: 21

Candidate Starts for Corazon_31:

(1, 10241), (Start: 21 @10376 has 17 MA's), (Start: 38 @10457 has 5 MA's), (56, 10577), (61, 10607), (69, 10667), (87, 10802),

Gene: Cornie_1 Start: 85, Stop: 549, Start Num: 19

Candidate Starts for Cornie_1:

(Start: 19 @85 has 20 MA's), (31, 133), (Start: 32 @148 has 1 MA's), (34, 154), (39, 172), (42, 187), (46, 226), (51, 277), (53, 295), (63, 361), (64, 379), (65, 385), (66, 388), (67, 397), (68, 403), (69, 409), (70, 418), (86, 535), (88, 544),

Gene: Cozz_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Cozz_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (63, 319), (69, 364),

Gene: Crater_1 Start: 50, Stop: 484, Start Num: 19

Candidate Starts for Crater_1:

(Start: 19 @50 has 20 MA's), (34, 125), (Start: 38 @134 has 5 MA's), (43, 167), (44, 170), (51, 218), (55, 254), (58, 272), (64, 317), (69, 347), (72, 386),

Gene: DLane_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for DLane_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: DRBy19_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for DRBy19_1:

(Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (41, 197), (48, 236), (49, 242), (53, 275), (58, 311), (60, 320), (61, 326), (62, 329), (68, 389), (82, 515), (94, 557),

Gene: Dante_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Dante_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (48, 235), (49, 241), (53, 274), (58, 310), (60, 319), (61, 325), (71, 424), (82, 514), (94, 556),

Gene: DeadP_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for DeadP_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: DillTech15_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for DillTech15_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Donkeykong_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Donkeykong_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: DotProduct_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for DotProduct_1:

(Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (43, 209), (45, 221), (46, 224), (48, 236), (49, 242), (53, 275), (60, 320), (61, 326), (62, 329), (71, 425), (72, 440), (82, 515), (94, 557),

Gene: Dre3_2 Start: 442, Stop: 927, Start Num: 19

Candidate Starts for Dre3_2:

(Start: 19 @442 has 20 MA's), (Start: 32 @523 has 1 MA's), (42, 562), (55, 676), (59, 697), (61, 709), (69, 769),

Gene: EleanorGeorge_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for EleanorGeorge_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Elinal_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for Elinal_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (57, 284), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: Elliott_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Elliott_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (55, 271), (63, 319), (69, 364),

Gene: Emalyn_1 Start: 52, Stop: 531, Start Num: 18

Candidate Starts for Emalyn_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (52, 241), (55, 271), (63, 319), (69, 364), (74, 412), (97, 526),

Gene: Emma_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Emma_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: FF47_04 Start: 1302, Stop: 1775, Start Num: 25

Candidate Starts for FF47_04:

(12, 1254), (Start: 25 @1302 has 3 MA's), (34, 1365), (Start: 36 @1368 has 1 MA's), (42, 1398), (54, 1500), (84, 1725), (93, 1746), (95, 1755),

Gene: Feastonyeet_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for Feastonyeet_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: Filuzino_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for Filuzino_1:

(Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (43, 209), (45, 221), (46, 224), (48, 236), (49, 242), (53, 275), (60, 320), (61, 326), (62, 329), (71, 425), (82, 515), (94, 557),

Gene: Firehouse51_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Firehouse51_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Florinda_1 Start: 106, Stop: 561, Start Num: 26

Candidate Starts for Florinda_1:

(Start: 26 @106 has 58 MA's), (30, 133), (37, 172), (43, 205), (45, 217), (46, 220), (48, 232), (49, 238), (53, 271), (58, 307), (60, 316), (61, 322), (68, 385), (72, 436), (82, 511), (94, 553),

Gene: Fribs8_2 Start: 426, Stop: 911, Start Num: 19

Candidate Starts for Fribs8_2:

(13, 399), (Start: 19 @426 has 20 MA's), (Start: 32 @507 has 1 MA's), (55, 660), (59, 681), (69, 753), (72, 792),

Gene: Fruitloop_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Fruitloop_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: GTE2_01 Start: 59, Stop: 535, Start Num: 21

Candidate Starts for GTE2_01:

(9, 14), (Start: 21 @59 has 17 MA's), (44, 188), (52, 242), (55, 272), (58, 290), (69, 365), (74, 413), (96, 524),

Gene: GUmbie_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for GUmbie_1:

(12, 50), (Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (43, 209), (45, 221), (46, 224), (48, 236), (49, 242), (53, 275), (60, 320), (61, 326), (62, 329), (71, 425), (72, 440), (82, 515), (94, 557),

Gene: Gandalph_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Gandalph_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Gattaca_32 Start: 9603, Stop: 10037, Start Num: 21

Candidate Starts for Gattaca_32:

(1, 9468), (Start: 21 @9603 has 17 MA's), (Start: 38 @9684 has 5 MA's), (56, 9804), (61, 9834), (69, 9894), (87, 10029),

Gene: GiKK_1 Start: 49, Stop: 504, Start Num: 18

Candidate Starts for GiKK_1:

(10, 22), (Start: 18 @49 has 24 MA's), (44, 178), (55, 262), (58, 280), (69, 355), (74, 403), (89, 490),

Gene: Gibbous_2 Start: 442, Stop: 927, Start Num: 19

Candidate Starts for Gibbous_2:

(Start: 19 @442 has 20 MA's), (Start: 32 @523 has 1 MA's), (42, 562), (55, 676), (59, 697), (61, 709), (69, 769),

Gene: GigiOuiOui_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for GigiOuiOui_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: GoldHunter_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for GoldHunter_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (63, 319), (69, 364),

Gene: Hades_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Hades_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Hamulus_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for Hamulus_1:

(Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (43, 209), (45, 221), (46, 224), (48, 236), (49, 242), (53, 275), (60, 320), (61, 326), (62, 329), (71, 425), (72, 440), (82, 515), (94, 557),

Gene: Hexbug_1 Start: 50, Stop: 505, Start Num: 18

Candidate Starts for Hexbug_1:

(Start: 18 @50 has 24 MA's), (Start: 27 @89 has 2 MA's), (44, 179), (55, 263), (69, 356), (74, 404), (89, 491),

Gene: HippoPololi_2 Start: 449, Stop: 934, Start Num: 19

Candidate Starts for HippoPololi_2:

(6, 380), (Start: 14 @425 has 1 MA's), (Start: 19 @449 has 20 MA's), (Start: 32 @530 has 1 MA's), (42, 569), (55, 683), (59, 704), (61, 716), (69, 776),

Gene: Horseradish_1 Start: 53, Stop: 535, Start Num: 18

Candidate Starts for Horseradish_1:

(9, 14), (Start: 18 @53 has 24 MA's), (Start: 27 @98 has 2 MA's), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: Huphlepuuff_35 Start: 10228, Stop: 10662, Start Num: 21

Candidate Starts for Huphlepuuff_35:

(1, 10093), (Start: 21 @10228 has 17 MA's), (Start: 38 @10309 has 5 MA's), (56, 10429), (61, 10459), (69, 10519), (87, 10654),

Gene: JacoRen57_1 Start: 190, Stop: 669, Start Num: 25

Candidate Starts for JacoRen57_1:

(3, 61), (5, 91), (7, 94), (16, 154), (Start: 25 @190 has 3 MA's), (34, 253), (39, 271), (61, 424), (64, 457), (75, 538), (79, 574), (81, 598), (84, 607),

Gene: James_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for James_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (41, 196), (43, 208), (48, 235), (49, 241), (53, 274), (58, 310), (60, 319), (61, 325), (62, 328), (68, 388), (90, 547), (94, 556),

Gene: Jamzy_1 Start: 49, Stop: 504, Start Num: 18

Candidate Starts for Jamzy_1:

(Start: 18 @49 has 24 MA's), (Start: 27 @88 has 2 MA's), (44, 178), (55, 262), (68, 349), (69, 355), (74, 403), (89, 490), (92, 499),

Gene: Janeemi_2 Start: 1168, Stop: 1620, Start Num: 21

Candidate Starts for Janeemi_2:

(Start: 21 @1168 has 17 MA's), (78, 1555), (80, 1573), (83, 1594),

Gene: JoieB_34 Start: 10528, Stop: 10881, Start Num: 38

Candidate Starts for JoieB_34:

(1, 10312), (Start: 21 @10447 has 17 MA's), (Start: 38 @10528 has 5 MA's), (56, 10648), (61, 10678), (69, 10738), (87, 10873),

Gene: Karhdo_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for Karhdo_1:

(12, 50), (Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (43, 209), (45, 221), (46, 224), (48, 236), (49, 242), (53, 275), (60, 320), (61, 326), (62, 329), (71, 425), (72, 440), (82, 515), (94, 557),

Gene: KayGee_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for KayGee_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (57, 284), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: KristaRAM_2 Start: 754, Stop: 1212, Start Num: 24

Candidate Starts for KristaRAM_2:

(Start: 24 @754 has 6 MA's), (30, 784), (37, 823), (40, 841), (43, 856), (45, 868), (46, 871), (48, 883), (49, 889), (53, 922), (60, 967), (61, 973), (62, 976), (71, 1072), (72, 1087), (82, 1162), (94, 1204),

Gene: Kuwabara_1 Start: 50, Stop: 484, Start Num: 19

Candidate Starts for Kuwabara_1:

(Start: 19 @50 has 20 MA's), (34, 125), (Start: 38 @134 has 5 MA's), (43, 167), (44, 170), (51, 218), (55, 254), (58, 272), (64, 317), (69, 347), (72, 386),

Gene: Lauer_1 Start: 146, Stop: 547, Start Num: 36

Candidate Starts for Lauer_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (57, 284), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: Lilbit_34 Start: 10424, Stop: 10858, Start Num: 21

Candidate Starts for Lilbit_34:

(1, 10289), (Start: 21 @10424 has 17 MA's), (Start: 38 @10505 has 5 MA's), (56, 10625), (61, 10655), (69, 10715), (87, 10850),

Gene: LittleLaf_33 Start: 10153, Stop: 10587, Start Num: 21

Candidate Starts for LittleLaf_33:

(1, 10018), (Start: 21 @10153 has 17 MA's), (Start: 38 @10234 has 5 MA's), (56, 10354), (61, 10384), (69, 10444), (87, 10579),

Gene: Llij_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Llij_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: MAnor_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for MAnor_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: MScarn_1 Start: 53, Stop: 535, Start Num: 18

Candidate Starts for MScarn_1:

(9, 14), (Start: 18 @53 has 24 MA's), (Start: 27 @98 has 2 MA's), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: MaVan_2 Start: 426, Stop: 923, Start Num: 19

Candidate Starts for MaVan_2:

(13, 399), (Start: 19 @426 has 20 MA's), (Start: 32 @507 has 1 MA's), (55, 660), (59, 681), (69, 753), (72, 792), (91, 900),

Gene: Maco6_2 Start: 581, Stop: 1054, Start Num: 25

Candidate Starts for Maco6_2:

(12, 533), (Start: 25 @581 has 3 MA's), (34, 644), (Start: 36 @647 has 1 MA's), (42, 677), (54, 779), (84, 1004), (93, 1025), (95, 1034),

Gene: MadMen_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for MadMen_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Mantra_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Mantra_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Margaret_1 Start: 49, Stop: 504, Start Num: 18

Candidate Starts for Margaret_1:

(Start: 18 @49 has 24 MA's), (55, 262), (69, 355), (74, 403), (89, 490),

Gene: Marvin_31 Start: 10504, Stop: 10857, Start Num: 38

Candidate Starts for Marvin_31:

(1, 10288), (Start: 21 @10423 has 17 MA's), (Start: 38 @10504 has 5 MA's), (56, 10624), (61, 10654), (69, 10714), (87, 10849),

Gene: Mayweather_2 Start: 513, Stop: 962, Start Num: 27

Candidate Starts for Mayweather_2:

(Start: 19 @474 has 20 MA's), (Start: 27 @513 has 2 MA's), (49, 636), (50, 639), (55, 687), (57, 699), (68, 774), (69, 780), (72, 819), (74, 828), (77, 849),

Gene: Melissauren88_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Melissauren88_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: MilanaBonita_2 Start: 754, Stop: 1212, Start Num: 24

Candidate Starts for MilanaBonita_2:

(Start: 24 @754 has 6 MA's), (30, 784), (37, 823), (40, 841), (43, 856), (45, 868), (46, 871), (48, 883), (49, 889), (53, 922), (60, 967), (61, 973), (62, 976), (71, 1072), (82, 1162), (94, 1204),

Gene: MilleniumForce_2 Start: 754, Stop: 1212, Start Num: 24

Candidate Starts for MilleniumForce_2:

(Start: 24 @754 has 6 MA's), (30, 784), (37, 823), (40, 841), (43, 856), (45, 868), (46, 871), (48, 883), (49, 889), (53, 922), (60, 967), (61, 973), (62, 976), (71, 1072), (82, 1162), (94, 1204),

Gene: MortyNRick_1 Start: 50, Stop: 484, Start Num: 19

Candidate Starts for MortyNRick_1:

(Start: 19 @50 has 20 MA's), (34, 125), (Start: 38 @134 has 5 MA's), (43, 167), (44, 170), (51, 218), (55, 254), (58, 272), (64, 317), (69, 347), (72, 386),

Gene: MosMoris_31 Start: 9684, Stop: 10037, Start Num: 38

Candidate Starts for MosMoris_31:

(1, 9468), (Start: 21 @9603 has 17 MA's), (Start: 38 @9684 has 5 MA's), (56, 9804), (61, 9834), (69, 9894), (87, 10029),

Gene: Muddy_4 Start: 1535, Stop: 2008, Start Num: 25

Candidate Starts for Muddy_4:

(12, 1487), (Start: 25 @1535 has 3 MA's), (34, 1598), (Start: 36 @1601 has 1 MA's), (42, 1631), (54, 1733), (84, 1958), (93, 1979), (95, 1988),

Gene: MunkgeeRoachy_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for MunkgeeRoachy_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (55, 271), (63, 319), (68, 358), (69, 364), (97, 526),

Gene: Mutaforma13_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Mutaforma13_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Nibbles_2 Start: 426, Stop: 923, Start Num: 19

Candidate Starts for Nibbles_2:

(13, 399), (Start: 19 @426 has 20 MA's), (Start: 32 @507 has 1 MA's), (55, 660), (59, 681), (69, 753), (72, 792), (91, 900),

Gene: Nina_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Nina_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (63, 319), (69, 364),

Gene: Nitzel_2 Start: 754, Stop: 1212, Start Num: 24

Candidate Starts for Nitzel_2:

(Start: 24 @754 has 6 MA's), (30, 784), (37, 823), (40, 841), (45, 868), (46, 871), (48, 883), (49, 889), (53, 922), (60, 967), (61, 973), (62, 976), (71, 1072), (82, 1162), (94, 1204),

Gene: NoShow_1 Start: 166, Stop: 675, Start Num: 14

Candidate Starts for NoShow_1:

(2, 82), (4, 115), (Start: 14 @166 has 1 MA's), (22, 199), (29, 244), (34, 277), (52, 379), (60, 436), (64, 478), (69, 508), (76, 562), (83, 625),

Gene: Nodigi_1 Start: 50, Stop: 505, Start Num: 18

Candidate Starts for Nodigi_1:

(Start: 18 @50 has 24 MA's), (Start: 27 @89 has 2 MA's), (44, 179), (55, 263), (69, 356), (74, 404), (89, 491),

Gene: Orla_1 Start: 49, Stop: 504, Start Num: 18

Candidate Starts for Orla_1:

(Start: 18 @49 has 24 MA's), (Start: 27 @88 has 2 MA's), (44, 178), (55, 262), (69, 355), (74, 403), (89, 490),

Gene: Ovechkin_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Ovechkin_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: PMC_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for PMC_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Phanphagia_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Phanphagia_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Phasih_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Phasih_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Poise_33 Start: 9822, Stop: 10175, Start Num: 38

Candidate Starts for Poise_33:

(Start: 17 @9732 has 1 MA's), (Start: 20 @9741 has 1 MA's), (Start: 38 @9822 has 5 MA's), (56, 9942), (61, 9972), (69, 10032), (87, 10167),

Gene: Pons_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for Pons_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: PopTart_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for PopTart_1:

(Start: 26 @109 has 58 MA's), (30, 136), (Start: 36 @172 has 1 MA's), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: PotPie_1 Start: 98, Stop: 547, Start Num: 27

Candidate Starts for PotPie_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (50, 224), (55, 272), (57, 284), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: Pringar_33 Start: 10053, Stop: 10487, Start Num: 21

Candidate Starts for Pringar_33:

(1, 9918), (Start: 21 @10053 has 17 MA's), (Start: 38 @10134 has 5 MA's), (56, 10254), (61, 10284), (69, 10344), (87, 10479),

Gene: PsychoKiller_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for PsychoKiller_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (55, 271), (63, 319), (69, 364),

Gene: Quasar_1 Start: 679, Stop: 1164, Start Num: 18

Candidate Starts for Quasar_1:

(Start: 18 @679 has 24 MA's), (Start: 32 @757 has 1 MA's), (44, 808), (52, 862), (55, 892), (57, 904), (63, 940), (69, 985),

Gene: QuickMath_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for QuickMath_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Raela_33 Start: 10296, Stop: 10730, Start Num: 20

Candidate Starts for Raela_33:

(Start: 17 @10287 has 1 MA's), (Start: 20 @10296 has 1 MA's), (Start: 38 @10377 has 5 MA's), (56, 10497), (61, 10527), (69, 10587), (87, 10722),

Gene: RedBaron_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for RedBaron_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (63, 319), (69, 364), (97, 526),

Gene: RedRaider77_33 Start: 10197, Stop: 10631, Start Num: 21

Candidate Starts for RedRaider77_33:

(1, 10062), (Start: 21 @10197 has 17 MA's), (Start: 38 @10278 has 5 MA's), (56, 10398), (61, 10428), (69, 10488), (87, 10623),

Gene: Rita_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for Rita_1:

(Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (43, 209), (45, 221), (46, 224), (48, 236), (49, 242), (53, 275), (60, 320), (61, 326), (62, 329), (71, 425), (82, 515), (94, 557),

Gene: Rockne_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Rockne_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Royals2015_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Royals2015_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: SG4_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for SG4_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: SPB78_1 Start: 51220, Stop: 426, Start Num: 19

Candidate Starts for SPB78_1:

(10, 51184), (Start: 19 @51220 has 20 MA's), (23, 51229), (35, 51298), (47, 51373), (51, 51406), (73, 51580),

Gene: Sabbb_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Sabbb_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Sandalphon_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Sandalphon_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: SassyB_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for SassyB_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Shauna1_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Shauna1_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: SheckWes_1 Start: 98, Stop: 547, Start Num: 27

Candidate Starts for SheckWes_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (57, 284), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: ShroomBoi_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for ShroomBoi_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: SketchMex_1 Start: 52, Stop: 534, Start Num: 18

Candidate Starts for SketchMex_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (69, 364), (74, 412), (96, 523),

Gene: Snek_2 Start: 958, Stop: 1422, Start Num: 21

Candidate Starts for Snek_2:

(Start: 21 @958 has 17 MA's), (63, 1207), (83, 1396), (85, 1405),

Gene: Sopespian_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Sopespian_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (55, 271), (63, 319), (69, 364),

Gene: Sparkdehlily_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for Sparkdehlily_1:

(Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (41, 197), (48, 236), (49, 242), (53, 275), (58, 311), (60, 320), (61, 326), (62, 329), (68, 389), (82, 515), (94, 557),

Gene: StAnnes_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for StAnnes_1:

(Start: 26 @109 has 58 MA's), (30, 136), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: SteamedHams_1 Start: 59, Stop: 535, Start Num: 21

Candidate Starts for SteamedHams_1:

(9, 14), (Start: 21 @59 has 17 MA's), (28, 107), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: SummitAcademy_1 Start: 56, Stop: 547, Start Num: 19

Candidate Starts for SummitAcademy_1:

(Start: 19 @56 has 20 MA's), (Start: 27 @98 has 2 MA's), (Start: 36 @146 has 1 MA's), (49, 221), (50, 224), (55, 272), (68, 359), (69, 365), (72, 404), (74, 413), (77, 434),

Gene: SuperGrey_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for SuperGrey_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Survivors_2 Start: 426, Stop: 911, Start Num: 19

Candidate Starts for Survivors_2:

(13, 399), (Start: 19 @426 has 20 MA's), (Start: 32 @507 has 1 MA's), (55, 660), (59, 681), (69, 753), (72, 792),

Gene: SweatNTears_2 Start: 757, Stop: 1155, Start Num: 32

Candidate Starts for SweatNTears_2:

(Start: 18 @679 has 24 MA's), (Start: 32 @757 has 1 MA's), (44, 808), (52, 862), (55, 892), (57, 904), (63, 940), (69, 985), (96, 1144),

Gene: TDanisky_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for TDanisky_1:

(Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (41, 197), (48, 236), (49, 242), (53, 275), (58, 311), (60, 320), (61, 326), (62, 329), (68, 389), (82, 515), (94, 557),

Gene: Taj_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Taj_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: Tesla_32 Start: 10046, Stop: 10480, Start Num: 21

Candidate Starts for Tesla_32:

(1, 9911), (Start: 21 @10046 has 17 MA's), (Start: 38 @10127 has 5 MA's), (56, 10247), (61, 10277), (69, 10337), (87, 10472),

Gene: Tolls_1 Start: 59, Stop: 535, Start Num: 21

Candidate Starts for Tolls_1:

(9, 14), (Start: 21 @59 has 17 MA's), (28, 107), (44, 188), (52, 242), (55, 272), (63, 320), (69, 365), (74, 413), (96, 524),

Gene: Troje_1 Start: 53, Stop: 535, Start Num: 18

Candidate Starts for Troje_1:

(9, 14), (Start: 18 @53 has 24 MA's), (Start: 27 @98 has 2 MA's), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: Tweety_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Tweety_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Tweety19_2 Start: 958, Stop: 1422, Start Num: 21

Candidate Starts for Tweety19_2:

(Start: 21 @958 has 17 MA's), (63, 1207), (83, 1396), (85, 1405),

Gene: Typhonomachy_1 Start: 52, Stop: 543, Start Num: 18

Candidate Starts for Typhonomachy_1:

(10, 22), (Start: 18 @52 has 24 MA's), (Start: 27 @97 has 2 MA's), (44, 187), (50, 223), (52, 241), (55, 271), (63, 319), (69, 364),

Gene: VWB_1 Start: 1, Stop: 480, Start Num: 19

Candidate Starts for VWB_1:

(Start: 19 @1 has 20 MA's), (23, 10), (33, 76), (47, 154), (51, 187), (73, 361), (74, 364),

Gene: VasuNzinga_33 Start: 9630, Stop: 10064, Start Num: 21

Candidate Starts for VasuNzinga_33:

(1, 9495), (Start: 21 @9630 has 17 MA's), (Start: 38 @9711 has 5 MA's), (56, 9831), (61, 9861), (69, 9921), (87, 10056),

Gene: Veteran_1 Start: 110, Stop: 565, Start Num: 26

Candidate Starts for Veteran_1:

(12, 50), (Start: 26 @110 has 58 MA's), (30, 137), (37, 176), (40, 194), (43, 209), (45, 221), (46, 224), (48, 236), (49, 242), (53, 275), (60, 320), (61, 326), (62, 329), (71, 425), (72, 440), (82, 515), (94, 557),

Gene: Vine_2 Start: 681, Stop: 1172, Start Num: 19

Candidate Starts for Vine_2:

(Start: 19 @681 has 20 MA's), (28, 732), (Start: 32 @762 has 1 MA's), (44, 813), (50, 849), (55, 897), (57, 909), (63, 945), (68, 984), (69, 990), (72, 1029), (74, 1038), (77, 1059),

Gene: Wee_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Wee_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Whatsapiecost_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Whatsapiecost_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (82, 514), (94, 556),

Gene: XFactor_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for XFactor_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),

Gene: Yakult_1 Start: 48, Stop: 503, Start Num: 18

Candidate Starts for Yakult_1:

(Start: 18 @48 has 24 MA's), (Start: 36 @135 has 1 MA's), (44, 177), (55, 261), (69, 354), (74, 402), (89, 489),

Gene: Yarn_1 Start: 59, Stop: 535, Start Num: 21

Candidate Starts for Yarn_1:

(9, 14), (Start: 21 @59 has 17 MA's), (28, 107), (44, 188), (52, 242), (55, 272), (63, 320), (69, 365), (74, 413), (96, 524),

Gene: Yummy_1 Start: 53, Stop: 535, Start Num: 18

Candidate Starts for Yummy_1:

(9, 14), (Start: 18 @53 has 24 MA's), (Start: 27 @98 has 2 MA's), (44, 188), (52, 242), (55, 272), (69, 365), (74, 413), (96, 524),

Gene: Zareef_2 Start: 426, Stop: 923, Start Num: 19

Candidate Starts for Zareef_2:

(13, 399), (Start: 19 @426 has 20 MA's), (Start: 32 @507 has 1 MA's), (55, 660), (59, 681), (69, 753), (72, 792), (91, 900),

Gene: Zizzle_1 Start: 109, Stop: 564, Start Num: 26

Candidate Starts for Zizzle_1:

(Start: 26 @109 has 58 MA's), (30, 136), (37, 175), (40, 193), (43, 208), (45, 220), (46, 223), (48, 235), (49, 241), (53, 274), (60, 319), (61, 325), (62, 328), (71, 424), (72, 439), (82, 514), (94, 556),