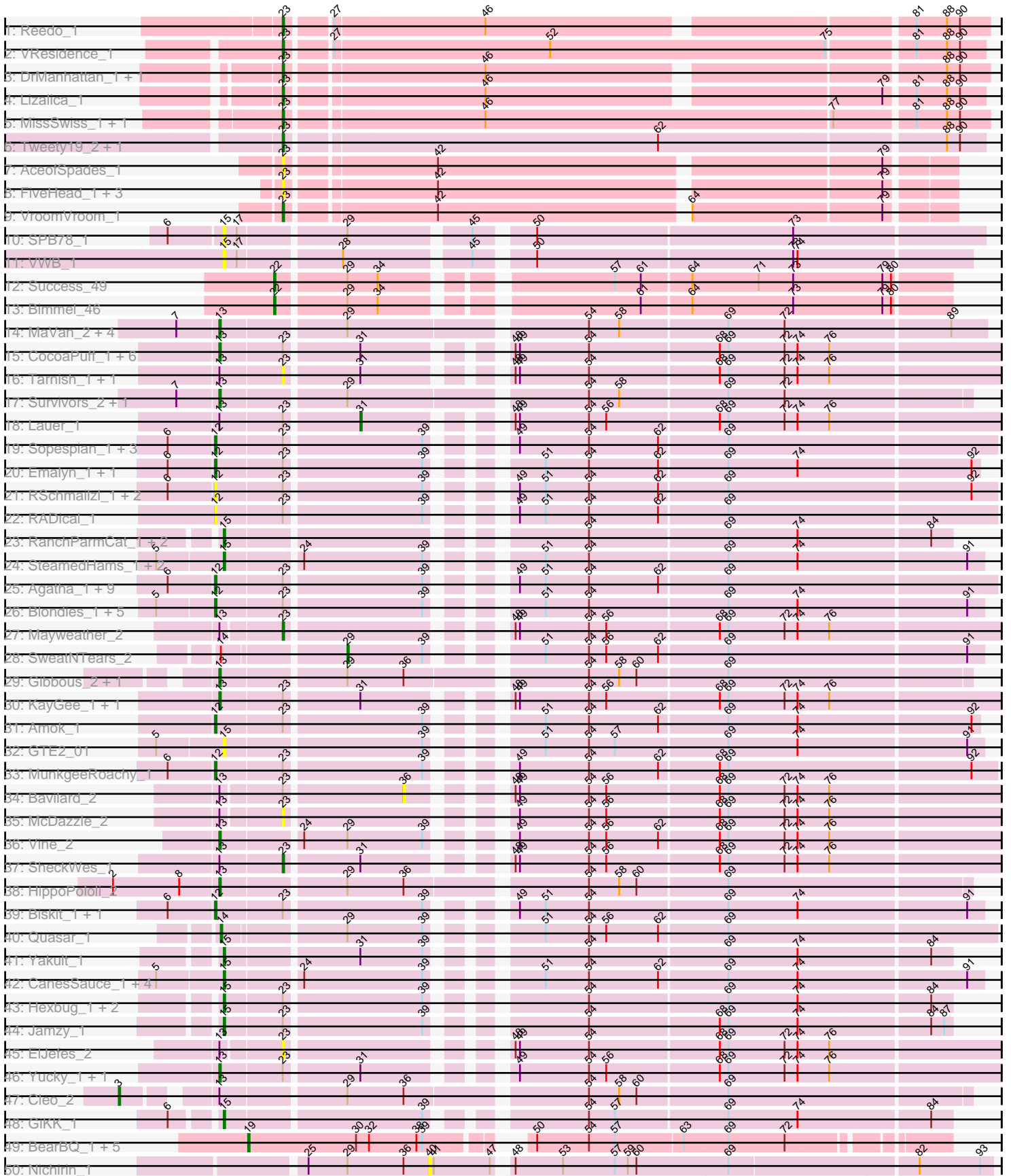
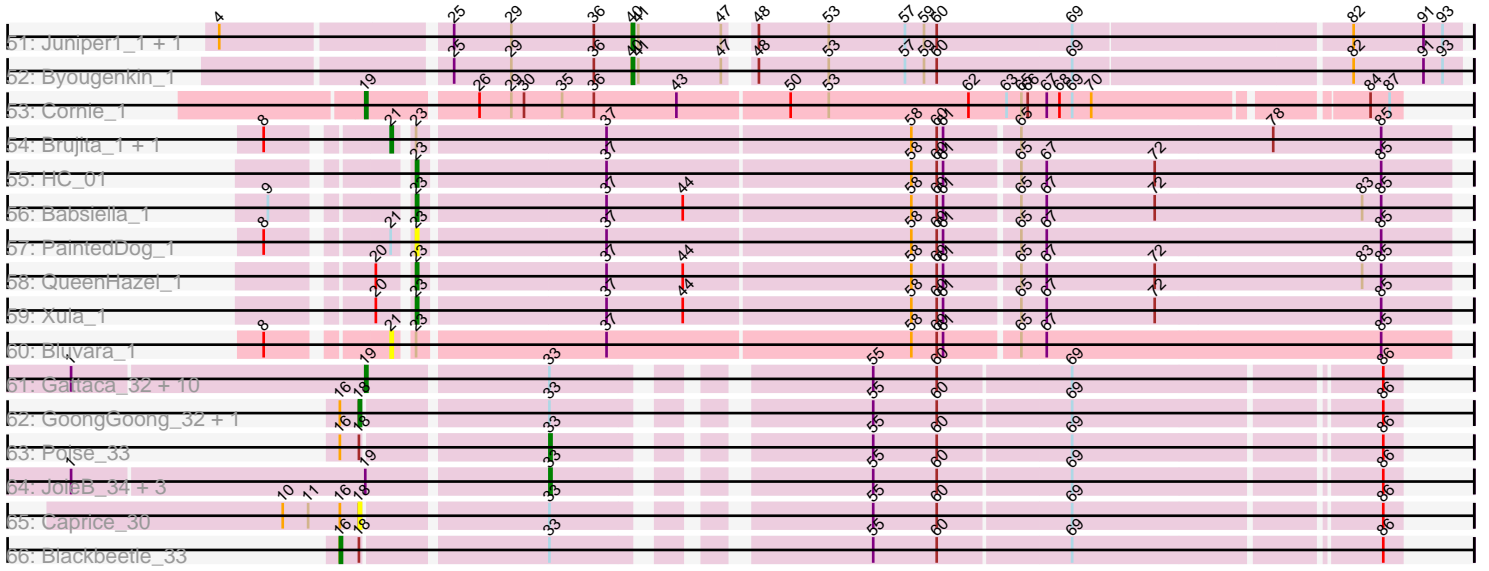


Pham 294519



Pham 294519



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 294519 Report

This analysis was run 04/18/26 on database version 643.

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 294519 has 139 members, 34 are drafts.

Phages represented in each track:

- Track 1 : Reedo_1
- Track 2 : VResidence_1
- Track 3 : DrManhattan_1, Adolin_1
- Track 4 : Lizalica_1
- Track 5 : MissSwiss_1, PandaPo_1
- Track 6 : Tweety19_2, SneK_2
- Track 7 : AceofSpades_1
- Track 8 : FiveHead_1, JohnThicc_1, LadyAstra_1, Origami_1
- Track 9 : VroomVroom_1
- Track 10 : SPB78_1
- Track 11 : VWB_1
- Track 12 : Success_49
- Track 13 : Bimmel_46
- Track 14 : MaVan_2, Wolfwood_2, Zareef_2, Azira_2, Nibbles_2
- Track 15 : CocoaPuff_1, BigChungus_1, Feastonyeet_1, SummitAcademy_1, MAnor_1, CherryonLim_1, Pons_1
- Track 16 : Tarnish_1, Balloona_1
- Track 17 : Survivors_2, Fribs8_2
- Track 18 : Lauer_1
- Track 19 : Sopespian_1, PsychoKiller_1, Burnsey_1, Elliott_1
- Track 20 : Emalyn_1, AikoCarson_1
- Track 21 : RSchmailzl_1, RedBaron_1, Carsonalex_1
- Track 22 : RADical_1
- Track 23 : RanchParmCat_1, Button_1, Margaret_1
- Track 24 : SteamedHams_1, AndPeggy_1, BillDoor_1
- Track 25 : Agatha_1, Nina_1, Cozz_1, ChickenTender_1, Bubble_1, Typhonomachy_1, GoldHunter_1, Socotra_1, Starburst_1, Axym_1
- Track 26 : Blondies_1, Horseradish_1, Troje_1, MScarn_1, Buttrmilkdreams_1, Yummy_1
- Track 27 : Mayweather_2
- Track 28 : SweatNTears_2
- Track 29 : Gibbous_2, Dre3_2
- Track 30 : KayGee_1, Elinal_1

- Track 31 : Amok_1
- Track 32 : GTE2_01
- Track 33 : MunkgeeRoachy_1
- Track 34 : Bavidard_2
- Track 35 : McDazzle_2
- Track 36 : Vine_2
- Track 37 : SheckWes_1
- Track 38 : HippoPololi_2
- Track 39 : Biskit_1, SketchMex_1
- Track 40 : Quasar_1
- Track 41 : Yakult_1
- Track 42 : CanesSauce_1, Tolls_1, CaramelLatte_1, ChocoMunchkin_1, Yarn_1
- Track 43 : Hexbug_1, Orla_1, Nodigi_1
- Track 44 : Jamzy_1
- Track 45 : ElJefes_2
- Track 46 : Yucky_1, PotPie_1
- Track 47 : Cleo_2
- Track 48 : GiKK_1
- Track 49 : BearBQ_1, MortyNRick_1, Kuwabara_1, Crater_1, Apricot_1, Birdsong_1
- Track 50 : Nichirin_1
- Track 51 : Juniper1_1, IbOuu_1
- Track 52 : Byougenkin_1
- Track 53 : Cornie_1
- Track 54 : Brujita_1, Island3_1
- Track 55 : HC_01
- Track 56 : Babsiella_1
- Track 57 : PaintedDog_1
- Track 58 : QueenHazel_1
- Track 59 : Xula_1
- Track 60 : Bluvara_1
- Track 61 : Gattaca_32, RedRaider77_33, Corazon_31, Huphlepuuff_35, Tesla_32, Pringar_33, Lilbit_32, LittleLaf_33, VasuNzinga_33, FeliMaine_35, Clarkson_34
- Track 62 : GoongGoong_32, Raela_33
- Track 63 : Poise_33
- Track 64 : JoieB_34, Marvin_31, MosMoris_31, Beelzebub_37
- Track 65 : Caprice_30
- Track 66 : 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 13, it was called in 20 of the 105 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Azira_2, BigChungus_1, CherryonLim_1, CocoaPuff_1, Dre3_2, Elinal_1, Feastonyeet_1, Fribs8_2, Gibbous_2, HippoPololi_2, KayGee_1, MAnor_1, MaVan_2, Nibbles_2, Pons_1, PotPie_1, SummitAcademy_1, Survivors_2, Vine_2, Wolfwood_2, Yucky_1, Zareef_2,

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

- Balloona_1, Bavidard_2, Cleo_2, ElJefes_2, Lauer_1, Mayweather_2, McDazzle_2, SheckWes_1, Tarnish_1,

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

- AceofSpades_1, Adolin_1, Agatha_1, AikoCarson_1, Amok_1, AndPeggy_1, Apricot_1, Axym_1, Babsiella_1, BearBQ_1, Beelzebub_37, BillDoor_1, Bimmel_46, Birdsong_1, Biskit_1, Blackbeetle_33, Blondies_1, Bluvara_1, Brujita_1, Bubble_1, Burnsey_1, Button_1, Buttrmlkdreams_1, Byougenkin_1, CanesSauce_1, Caprice_30, CaramelLatte_1, Carsonalex_1, ChickenTender_1, ChocoMunchkin_1, Clarkson_34, Corazon_31, Cornie_1, Cozz_1, Crater_1, DrManhattan_1, Elliott_1, Emalyn_1, FeliMaine_35, FiveHead_1, GTE2_01, Gattaca_32, GiKK_1, GoldHunter_1, GoongGoong_32, HC_01, Hexbug_1, Horseradish_1, Huphlepuuff_35, IbOuu_1, Island3_1, Jamzy_1, JohnThicc_1, JoieB_34, Juniper1_1, Kuwabara_1, LadyAstra_1, Lilbit_32, LittleLaf_33, Lizalica_1, MScarn_1, Margaret_1, Marvin_31, MissSwiss_1, MortyNRick_1, MosMoris_31, MunkgeeRoachy_1, Nichirin_1, Nina_1, Nodigi_1, Origami_1, Orla_1, PaintedDog_1, PandaPo_1, Poise_33, Pringar_33, PsychoKiller_1, Quasar_1, QueenHazel_1, RADical_1, RSchmailzl_1, Raela_33, RanchParmCat_1, RedBaron_1, RedRaider77_33, Reedo_1, SPB78_1, SketchMex_1, Snek_2, Socotra_1, Sopespian_1, Starburst_1, SteamedHams_1, Success_49, SweatNTears_2, Tesla_32, Tolls_1, Troje_1, Tweety19_2, Typhonomachy_1, VResidence_1, VWB_1, VasuNzinga_33, VroomVroom_1, Xula_1, Yakult_1, Yarn_1, Yummy_1,

Summary by start number:

Start 3:

- Found in 1 of 139 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cleo_2 (CT),

Start 12:

- Found in 30 of 139 (21.6%) of genes in pham
- Manual Annotations of this start: 19 of 105
- Called 100.0% 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), Blondies_1 (CT), Bubble_1 (CT), Burnsey_1 (CT), Buttrmlkdreams_1 (CT), Carsonalex_1 (CT), ChickenTender_1 (CT), Cozz_1 (CT), Elliott_1 (CT), Emalyn_1 (CT), GoldHunter_1 (CT), Horseradish_1 (CT), MScarn_1 (CT), MunkgeeRoachy_1 (CT), Nina_1 (CT), PsychoKiller_1 (CT), RADical_1 (CT), RSchmailzl_1 (CT), RedBaron_1 (CT), SketchMex_1 (CT), Socotra_1 (CT), Sopespian_1 (CT), Starburst_1 (CT), Troje_1 (CT), Typhonomachy_1 (CT), Yummy_1 (CT),

Start 13:

- Found in 31 of 139 (22.3%) of genes in pham
- Manual Annotations of this start: 20 of 105
- Called 71.0% of time when present
- Phage (with cluster) where this start called: Azira_2 (CT), BigChungus_1 (CT), CherryonLim_1 (CT), CocoaPuff_1 (CT), Dre3_2 (CT), Elinal_1 (CT), Feastonyeet_1 (CT), Fribs8_2 (CT), Gibbous_2 (CT), HippoPololi_2 (CT), KayGee_1 (CT), MAnor_1 (CT), MaVan_2 (CT), Nibbles_2 (CT), Pons_1 (CT), PotPie_1 (CT), SummitAcademy_1 (CT), Survivors_2 (CT), Vine_2 (CT), Wolfwood_2 (CT), Yucky_1

(CT), Zareef_2 (CT),

Start 14:

- Found in 2 of 139 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 105
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Quasar_1 (CT),

Start 15:

- Found in 20 of 139 (14.4%) of genes in pham
- Manual Annotations of this start: 14 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AndPeggy_1 (CT), BillDoor_1 (CT), Button_1 (CT), CanesSauce_1 (CT), CaramelLatte_1 (CT), ChocoMunchkin_1 (CT), GTE2_01 (CT), GiKK_1 (CT), Hexbug_1 (CT), Jamzy_1 (CT), Margaret_1 (CT), Nodigi_1 (CT), Orla_1 (CT), RanchParmCat_1 (CT), SPB78_1 (BA), SteamedHams_1 (CT), Tolls_1 (CT), VWB_1 (BA), Yakult_1 (CT), Yarn_1 (CT),

Start 16:

- Found in 5 of 139 (3.6%) of genes in pham
- Manual Annotations of this start: 1 of 105
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Blackbeetle_33 (S),

Start 18:

- Found in 5 of 139 (3.6%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Caprice_30 (S), GoongGoong_32 (S), Raela_33 (S),

Start 19:

- Found in 22 of 139 (15.8%) of genes in pham
- Manual Annotations of this start: 18 of 105
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Apricot_1 (DN3), BearBQ_1 (DN), Birdsong_1 (DN), Clarkson_34 (S), Corazon_31 (S), Cornie_1 (F5), Crater_1 (DN3), FeliMaine_35 (S), Gattaca_32 (S), Huphlepuuff_35 (S), Kuwabara_1 (DN4), Lilbit_32 (S), LittleLaf_33 (S), MortyNRick_1 (DN), Pringar_33 (S), RedRaider77_33 (S), Tesla_32 (S), VasuNzinga_33 (S),

Start 21:

- Found in 4 of 139 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Bluvara_1 (I3), Brujita_1 (I1), Island3_1 (I1),

Start 22:

- Found in 2 of 139 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bimmel_46 (BT), Success_49 (BT),

Start 23:

- Found in 76 of 139 (54.7%) of genes in pham
- Manual Annotations of this start: 15 of 105
- Called 34.2% of time when present
- Phage (with cluster) where this start called: AceofSpades_1 (AZ4), Adolin_1 (AZ1), Babsiella_1 (I1), Balloona_1 (CT), DrManhattan_1 (AZ1), ElJefes_2 (CT), FiveHead_1 (AZ4), HC_01 (I1), JohnThicc_1 (AZ4), LadyAstra_1 (AZ4), Lizalica_1 (AZ1), Mayweather_2 (CT), McDazzle_2 (CT), MissSwiss_1 (AZ1), Origami_1 (AZ4), PaintedDog_1 (I1), PandaPo_1 (AZ1), QueenHazel_1 (I1), Reedo_1 (AZ1), SheckWes_1 (CT), Sneek_2 (AZ3), Tarnish_1 (CT), Tweety19_2 (AZ3), VResidence_1 (AZ1), VroomVroom_1 (AZ4), Xula_1 (I1),

Start 29:

- Found in 22 of 139 (15.8%) of genes in pham
- Manual Annotations of this start: 1 of 105
- Called 4.5% of time when present
- Phage (with cluster) where this start called: SweatNTears_2 (CT),

Start 31:

- Found in 16 of 139 (11.5%) of genes in pham
- Manual Annotations of this start: 1 of 105
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Lauer_1 (CT),

Start 33:

- Found in 20 of 139 (14.4%) of genes in pham
- Manual Annotations of this start: 5 of 105
- Called 25.0% 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),

Start 36:

- Found in 10 of 139 (7.2%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Bavidard_2 (CT),

Start 40:

- Found in 4 of 139 (2.9%) of genes in pham
- Manual Annotations of this start: 3 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Byougenkin_1 (F1), IbOuu_1 (F1), Juniper1_1 (F1), Nichirin_1 (F1),

Summary by clusters:

There are 14 clusters represented in this pham: DN, F1, BA, F5, I1, I3, BT, DN4, S, DN3, AZ1, AZ3, AZ4, CT,

Info for manual annotations of cluster AZ1:

- Start number 23 was manually annotated 6 times for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 23 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 23 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster BT:

- Start number 22 was manually annotated 2 times for cluster BT.

Info for manual annotations of cluster CT:

- Start number 3 was manually annotated 1 time for cluster CT.
- Start number 12 was manually annotated 19 times for cluster CT.
- Start number 13 was manually annotated 20 times for cluster CT.
- Start number 14 was manually annotated 1 time for cluster CT.
- Start number 15 was manually annotated 14 times for cluster CT.
- Start number 23 was manually annotated 2 times for cluster CT.
- Start number 29 was manually annotated 1 time for cluster CT.
- Start number 31 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster DN:

- Start number 19 was manually annotated 3 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 40 was manually annotated 3 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 I1:

- Start number 21 was manually annotated 2 times for cluster I1.
- Start number 23 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster S:

- Start number 16 was manually annotated 1 time for cluster S.
- Start number 18 was manually annotated 2 times for cluster S.
- Start number 19 was manually annotated 11 times for cluster S.
- Start number 33 was manually annotated 5 times for cluster S.

Gene Information:

Gene: AceofSpades_1 Start: 132, Stop: 563, Start Num: 23

Candidate Starts for AceofSpades_1:

(Start: 23 @132 has 15 MA's), (42, 228), (79, 519),

Gene: Adolin_1 Start: 85, Stop: 537, Start Num: 23
Candidate Starts for Adolin_1:
(Start: 23 @85 has 15 MA's), (46, 214), (88, 508), (90, 517),

Gene: Agatha_1 Start: 52, Stop: 543, Start Num: 12
Candidate Starts for Agatha_1:
(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: AikoCarson_1 Start: 52, Stop: 531, Start Num: 12
Candidate Starts for AikoCarson_1:
(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (51, 241), (54, 271), (62, 319), (69, 364), (74, 412), (92, 526),

Gene: Amok_1 Start: 53, Stop: 532, Start Num: 12
Candidate Starts for Amok_1:
(Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (51, 242), (54, 272), (62, 320), (69, 365), (74, 413), (92, 527),

Gene: AndPeggy_1 Start: 59, Stop: 535, Start Num: 15
Candidate Starts for AndPeggy_1:
(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: Apricot_1 Start: 50, Stop: 484, Start Num: 19
Candidate Starts for Apricot_1:
(Start: 19 @50 has 18 MA's), (30, 125), (32, 134), (38, 167), (39, 170), (50, 218), (54, 254), (57, 272), (63, 317), (69, 347), (72, 386),

Gene: Axym_1 Start: 52, Stop: 543, Start Num: 12
Candidate Starts for Axym_1:
(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: Azira_2 Start: 425, Stop: 922, Start Num: 13
Candidate Starts for Azira_2:
(7, 398), (Start: 13 @425 has 20 MA's), (Start: 29 @506 has 1 MA's), (54, 659), (58, 680), (69, 752), (72, 791), (89, 899),

Gene: Babsiella_1 Start: 67, Stop: 540, Start Num: 23
Candidate Starts for Babsiella_1:
(9, 16), (Start: 23 @67 has 15 MA's), (37, 151), (44, 187), (58, 292), (60, 304), (61, 307), (65, 340), (67, 352), (72, 403), (83, 499), (85, 508),

Gene: Balloona_1 Start: 98, Stop: 547, Start Num: 23
Candidate Starts for Balloona_1:
(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Bavilard_2 Start: 592, Stop: 963, Start Num: 36
Candidate Starts for Bavilard_2:

(Start: 13 @475 has 20 MA's), (Start: 23 @514 has 15 MA's), (36, 592), (48, 637), (49, 640), (54, 688), (56, 700), (68, 775), (69, 781), (72, 820), (74, 829), (76, 850),

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

Candidate Starts for BearBQ_1:

(Start: 19 @50 has 18 MA's), (30, 125), (32, 134), (38, 167), (39, 170), (50, 218), (54, 254), (57, 272), (63, 317), (69, 347), (72, 386),

Gene: Beelzebub_37 Start: 10803, Stop: 11156, Start Num: 33

Candidate Starts for Beelzebub_37:

(1, 10587), (Start: 19 @10722 has 18 MA's), (Start: 33 @10803 has 5 MA's), (55, 10923), (60, 10953), (69, 11013), (86, 11148),

Gene: BigChungus_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for BigChungus_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: BillDoor_1 Start: 59, Stop: 535, Start Num: 15

Candidate Starts for BillDoor_1:

(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: Bimmel_46 Start: 24939, Stop: 25364, Start Num: 22

Candidate Starts for Bimmel_46:

(Start: 22 @24939 has 2 MA's), (Start: 29 @24984 has 1 MA's), (34, 25005), (61, 25158), (64, 25191), (73, 25260), (79, 25320), (80, 25326),

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

Candidate Starts for Birdsong_1:

(Start: 19 @50 has 18 MA's), (30, 125), (32, 134), (38, 167), (39, 170), (50, 218), (54, 254), (57, 272), (63, 317), (69, 347), (72, 386),

Gene: Biskit_1 Start: 52, Stop: 534, Start Num: 12

Candidate Starts for Biskit_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (69, 364), (74, 412), (91, 523),

Gene: Blackbeetle_33 Start: 9732, Stop: 10175, Start Num: 16

Candidate Starts for Blackbeetle_33:

(Start: 16 @9732 has 1 MA's), (Start: 18 @9741 has 2 MA's), (Start: 33 @9822 has 5 MA's), (55, 9942), (60, 9972), (69, 10032), (86, 10167),

Gene: Blondies_1 Start: 53, Stop: 535, Start Num: 12

Candidate Starts for Blondies_1:

(5, 14), (Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: Bluvara_1 Start: 62, Stop: 541, Start Num: 21

Candidate Starts for Bluvara_1:

(8, 14), (Start: 21 @62 has 2 MA's), (Start: 23 @68 has 15 MA's), (37, 152), (58, 293), (60, 305), (61, 308), (65, 341), (67, 353), (85, 509),

Gene: Brujita_1 Start: 62, Stop: 541, Start Num: 21

Candidate Starts for Brujita_1:

(8, 14), (Start: 21 @62 has 2 MA's), (Start: 23 @68 has 15 MA's), (37, 152), (58, 293), (60, 305), (61, 308), (65, 341), (78, 458), (85, 509),

Gene: Bubble_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Bubble_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: Burnsey_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Burnsey_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (54, 271), (62, 319), (69, 364),

Gene: Button_1 Start: 50, Stop: 505, Start Num: 15

Candidate Starts for Button_1:

(Start: 15 @50 has 14 MA's), (54, 263), (69, 356), (74, 404), (84, 491),

Gene: Buttrmlkdreams_1 Start: 53, Stop: 535, Start Num: 12

Candidate Starts for Buttrmlkdreams_1:

(5, 14), (Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: Byougenkin_1 Start: 193, Stop: 564, Start Num: 40

Candidate Starts for Byougenkin_1:

(25, 109), (Start: 29 @136 has 1 MA's), (36, 175), (Start: 40 @193 has 3 MA's), (41, 196), (47, 235), (48, 241), (53, 274), (57, 310), (59, 319), (60, 325), (69, 388), (82, 514), (91, 547), (93, 556),

Gene: CanesSauce_1 Start: 59, Stop: 535, Start Num: 15

Candidate Starts for CanesSauce_1:

(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (62, 320), (69, 365), (74, 413), (91, 524),

Gene: Caprice_30 Start: 9811, Stop: 10245, Start Num: 18

Candidate Starts for Caprice_30:

(10, 9775), (11, 9787), (Start: 16 @9802 has 1 MA's), (Start: 18 @9811 has 2 MA's), (Start: 33 @9892 has 5 MA's), (55, 10012), (60, 10042), (69, 10102), (86, 10237),

Gene: CaramellLatte_1 Start: 59, Stop: 535, Start Num: 15

Candidate Starts for CaramellLatte_1:

(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (62, 320), (69, 365), (74, 413), (91, 524),

Gene: Carsonalex_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Carsonalex_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364), (92, 526),

Gene: CherryonLim_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for CherryonLim_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: ChickenTender_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for ChickenTender_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: ChocoMunchkin_1 Start: 59, Stop: 535, Start Num: 15

Candidate Starts for ChocoMunchkin_1:

(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (62, 320), (69, 365), (74, 413), (91, 524),

Gene: Clarkson_34 Start: 10423, Stop: 10857, Start Num: 19

Candidate Starts for Clarkson_34:

(1, 10288), (Start: 19 @10423 has 18 MA's), (Start: 33 @10504 has 5 MA's), (55, 10624), (60, 10654), (69, 10714), (86, 10849),

Gene: Cleo_2 Start: 447, Stop: 983, Start Num: 3

Candidate Starts for Cleo_2:

(Start: 3 @447 has 1 MA's), (Start: 13 @498 has 20 MA's), (Start: 29 @579 has 1 MA's), (36, 618), (54, 732), (58, 753), (60, 765), (69, 825),

Gene: CocoaPuff_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for CocoaPuff_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Corazon_31 Start: 10376, Stop: 10810, Start Num: 19

Candidate Starts for Corazon_31:

(1, 10241), (Start: 19 @10376 has 18 MA's), (Start: 33 @10457 has 5 MA's), (55, 10577), (60, 10607), (69, 10667), (86, 10802),

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

Candidate Starts for Cornie_1:

(Start: 19 @85 has 18 MA's), (26, 133), (Start: 29 @148 has 1 MA's), (30, 154), (35, 172), (36, 187), (43, 226), (50, 277), (53, 295), (62, 361), (63, 379), (65, 385), (66, 388), (67, 397), (68, 403), (69, 409), (70, 418), (84, 535), (87, 544),

Gene: Cozz_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Cozz_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

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

Candidate Starts for Crater_1:

(Start: 19 @50 has 18 MA's), (30, 125), (32, 134), (38, 167), (39, 170), (50, 218), (54, 254), (57, 272), (63, 317), (69, 347), (72, 386),

Gene: DrManhattan_1 Start: 85, Stop: 537, Start Num: 23

Candidate Starts for DrManhattan_1:

(Start: 23 @85 has 15 MA's), (46, 214), (88, 508), (90, 517),

Gene: Dre3_2 Start: 442, Stop: 927, Start Num: 13

Candidate Starts for Dre3_2:

(Start: 13 @442 has 20 MA's), (Start: 29 @523 has 1 MA's), (36, 562), (54, 676), (58, 697), (60, 709), (69, 769),

Gene: ElJefes_2 Start: 514, Stop: 963, Start Num: 23

Candidate Starts for ElJefes_2:

(Start: 13 @475 has 20 MA's), (Start: 23 @514 has 15 MA's), (48, 637), (49, 640), (54, 688), (68, 775), (69, 781), (72, 820), (74, 829), (76, 850),

Gene: Elinal_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for Elinal_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (56, 284), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Eliott_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Eliott_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (54, 271), (62, 319), (69, 364),

Gene: Emalyn_1 Start: 52, Stop: 531, Start Num: 12

Candidate Starts for Emalyn_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (51, 241), (54, 271), (62, 319), (69, 364), (74, 412), (92, 526),

Gene: Feastonyeet_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for Feastonyeet_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: FeliMaine_35 Start: 10424, Stop: 10858, Start Num: 19

Candidate Starts for FeliMaine_35:

(1, 10289), (Start: 19 @10424 has 18 MA's), (Start: 33 @10505 has 5 MA's), (55, 10625), (60, 10655), (69, 10715), (86, 10850),

Gene: FiveHead_1 Start: 132, Stop: 563, Start Num: 23

Candidate Starts for FiveHead_1:

(Start: 23 @132 has 15 MA's), (42, 228), (79, 519),

Gene: Fribs8_2 Start: 426, Stop: 911, Start Num: 13

Candidate Starts for Fribs8_2:

(7, 399), (Start: 13 @426 has 20 MA's), (Start: 29 @507 has 1 MA's), (54, 660), (58, 681), (69, 753), (72, 792),

Gene: GTE2_01 Start: 59, Stop: 535, Start Num: 15

Candidate Starts for GTE2_01:

(5, 14), (Start: 15 @59 has 14 MA's), (39, 188), (51, 242), (54, 272), (57, 290), (69, 365), (74, 413), (91, 524),

Gene: Gattaca_32 Start: 9603, Stop: 10037, Start Num: 19

Candidate Starts for Gattaca_32:

(1, 9468), (Start: 19 @9603 has 18 MA's), (Start: 33 @9684 has 5 MA's), (55, 9804), (60, 9834), (69, 9894), (86, 10029),

Gene: GiKK_1 Start: 49, Stop: 504, Start Num: 15

Candidate Starts for GiKK_1:

(6, 22), (Start: 15 @49 has 14 MA's), (39, 178), (54, 262), (57, 280), (69, 355), (74, 403), (84, 490),

Gene: Gibbous_2 Start: 442, Stop: 927, Start Num: 13

Candidate Starts for Gibbous_2:

(Start: 13 @442 has 20 MA's), (Start: 29 @523 has 1 MA's), (36, 562), (54, 676), (58, 697), (60, 709), (69, 769),

Gene: GoldHunter_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for GoldHunter_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: GoongGoong_32 Start: 9643, Stop: 10077, Start Num: 18

Candidate Starts for GoongGoong_32:

(Start: 16 @9634 has 1 MA's), (Start: 18 @9643 has 2 MA's), (Start: 33 @9724 has 5 MA's), (55, 9844), (60, 9874), (69, 9934), (86, 10069),

Gene: HC_01 Start: 67, Stop: 540, Start Num: 23

Candidate Starts for HC_01:

(Start: 23 @67 has 15 MA's), (37, 151), (58, 292), (60, 304), (61, 307), (65, 340), (67, 352), (72, 403), (85, 508),

Gene: Hexbug_1 Start: 50, Stop: 505, Start Num: 15

Candidate Starts for Hexbug_1:

(Start: 15 @50 has 14 MA's), (Start: 23 @89 has 15 MA's), (39, 179), (54, 263), (69, 356), (74, 404), (84, 491),

Gene: HippoPololi_2 Start: 449, Stop: 934, Start Num: 13

Candidate Starts for HippoPololi_2:

(2, 380), (8, 425), (Start: 13 @449 has 20 MA's), (Start: 29 @530 has 1 MA's), (36, 569), (54, 683), (58, 704), (60, 716), (69, 776),

Gene: Horseradish_1 Start: 53, Stop: 535, Start Num: 12

Candidate Starts for Horseradish_1:

(5, 14), (Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: Huphlebuff_35 Start: 10228, Stop: 10662, Start Num: 19

Candidate Starts for Huphlebuff_35:

(1, 10093), (Start: 19 @10228 has 18 MA's), (Start: 33 @10309 has 5 MA's), (55, 10429), (60, 10459), (69, 10519), (86, 10654),

Gene: lbOuu_1 Start: 192, Stop: 563, Start Num: 40

Candidate Starts for lbOuu_1:

(4, 9), (25, 108), (Start: 29 @135 has 1 MA's), (36, 174), (Start: 40 @192 has 3 MA's), (41, 195), (47, 234), (48, 240), (53, 273), (57, 309), (59, 318), (60, 324), (69, 387), (82, 513), (91, 546), (93, 555),

Gene: Island3_1 Start: 62, Stop: 541, Start Num: 21

Candidate Starts for Island3_1:

(8, 14), (Start: 21 @62 has 2 MA's), (Start: 23 @68 has 15 MA's), (37, 152), (58, 293), (60, 305), (61, 308), (65, 341), (78, 458), (85, 509),

Gene: Jamzy_1 Start: 49, Stop: 504, Start Num: 15

Candidate Starts for Jamzy_1:

(Start: 15 @49 has 14 MA's), (Start: 23 @88 has 15 MA's), (39, 178), (54, 262), (68, 349), (69, 355), (74, 403), (84, 490), (87, 499),

Gene: JohnThicc_1 Start: 132, Stop: 563, Start Num: 23

Candidate Starts for JohnThicc_1:

(Start: 23 @132 has 15 MA's), (42, 228), (79, 519),

Gene: JoieB_34 Start: 10528, Stop: 10881, Start Num: 33

Candidate Starts for JoieB_34:

(1, 10312), (Start: 19 @10447 has 18 MA's), (Start: 33 @10528 has 5 MA's), (55, 10648), (60, 10678), (69, 10738), (86, 10873),

Gene: Juniper1_1 Start: 192, Stop: 563, Start Num: 40

Candidate Starts for Juniper1_1:

(4, 9), (25, 108), (Start: 29 @135 has 1 MA's), (36, 174), (Start: 40 @192 has 3 MA's), (41, 195), (47, 234), (48, 240), (53, 273), (57, 309), (59, 318), (60, 324), (69, 387), (82, 513), (91, 546), (93, 555),

Gene: KayGee_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for KayGee_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (56, 284), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

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

Candidate Starts for Kuwabara_1:

(Start: 19 @50 has 18 MA's), (30, 125), (32, 134), (38, 167), (39, 170), (50, 218), (54, 254), (57, 272), (63, 317), (69, 347), (72, 386),

Gene: LadyAstra_1 Start: 132, Stop: 563, Start Num: 23

Candidate Starts for LadyAstra_1:

(Start: 23 @132 has 15 MA's), (42, 228), (79, 519),

Gene: Lauer_1 Start: 146, Stop: 547, Start Num: 31

Candidate Starts for Lauer_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (56, 284), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Lilbit_32 Start: 10424, Stop: 10858, Start Num: 19

Candidate Starts for Lilbit_32:

(1, 10289), (Start: 19 @10424 has 18 MA's), (Start: 33 @10505 has 5 MA's), (55, 10625), (60, 10655), (69, 10715), (86, 10850),

Gene: LittleLaf_33 Start: 10153, Stop: 10587, Start Num: 19

Candidate Starts for LittleLaf_33:

(1, 10018), (Start: 19 @10153 has 18 MA's), (Start: 33 @10234 has 5 MA's), (55, 10354), (60, 10384), (69, 10444), (86, 10579),

Gene: Lizalica_1 Start: 85, Stop: 534, Start Num: 23

Candidate Starts for Lizalica_1:

(Start: 23 @85 has 15 MA's), (46, 214), (79, 469), (81, 487), (88, 508), (90, 517),

Gene: MAnor_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for MAnor_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: MScarn_1 Start: 53, Stop: 535, Start Num: 12

Candidate Starts for MScarn_1:

(5, 14), (Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: MaVan_2 Start: 426, Stop: 923, Start Num: 13

Candidate Starts for MaVan_2:

(7, 399), (Start: 13 @426 has 20 MA's), (Start: 29 @507 has 1 MA's), (54, 660), (58, 681), (69, 753), (72, 792), (89, 900),

Gene: Margaret_1 Start: 49, Stop: 504, Start Num: 15

Candidate Starts for Margaret_1:

(Start: 15 @49 has 14 MA's), (54, 262), (69, 355), (74, 403), (84, 490),

Gene: Marvin_31 Start: 10504, Stop: 10857, Start Num: 33

Candidate Starts for Marvin_31:

(1, 10288), (Start: 19 @10423 has 18 MA's), (Start: 33 @10504 has 5 MA's), (55, 10624), (60, 10654), (69, 10714), (86, 10849),

Gene: Mayweather_2 Start: 513, Stop: 962, Start Num: 23

Candidate Starts for Mayweather_2:

(Start: 13 @474 has 20 MA's), (Start: 23 @513 has 15 MA's), (48, 636), (49, 639), (54, 687), (56, 699), (68, 774), (69, 780), (72, 819), (74, 828), (76, 849),

Gene: McDazzle_2 Start: 514, Stop: 963, Start Num: 23

Candidate Starts for McDazzle_2:

(Start: 13 @475 has 20 MA's), (Start: 23 @514 has 15 MA's), (49, 640), (54, 688), (56, 700), (68, 775), (69, 781), (72, 820), (74, 829), (76, 850),

Gene: MissSwiss_1 Start: 87, Stop: 554, Start Num: 23

Candidate Starts for MissSwiss_1:

(Start: 23 @87 has 15 MA's), (46, 216), (77, 453), (81, 504), (88, 525), (90, 534),

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

Candidate Starts for MortyNRick_1:

(Start: 19 @50 has 18 MA's), (30, 125), (32, 134), (38, 167), (39, 170), (50, 218), (54, 254), (57, 272), (63, 317), (69, 347), (72, 386),

Gene: MosMoris_31 Start: 9684, Stop: 10037, Start Num: 33

Candidate Starts for MosMoris_31:

(1, 9468), (Start: 19 @9603 has 18 MA's), (Start: 33 @9684 has 5 MA's), (55, 9804), (60, 9834), (69, 9894), (86, 10029),

Gene: MunkgeeRoachy_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for MunkgeeRoachy_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (54, 271), (62, 319), (68, 358), (69, 364), (92, 526),

Gene: Nibbles_2 Start: 426, Stop: 923, Start Num: 13

Candidate Starts for Nibbles_2:

(7, 399), (Start: 13 @426 has 20 MA's), (Start: 29 @507 has 1 MA's), (54, 660), (58, 681), (69, 753), (72, 792), (89, 900),

Gene: Nichirin_1 Start: 193, Stop: 564, Start Num: 40

Candidate Starts for Nichirin_1:

(25, 109), (Start: 29 @136 has 1 MA's), (36, 175), (Start: 40 @193 has 3 MA's), (41, 196), (47, 235), (48, 241), (53, 274), (57, 310), (59, 319), (60, 325), (69, 388), (82, 514), (93, 556),

Gene: Nina_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Nina_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: Nodigi_1 Start: 50, Stop: 505, Start Num: 15

Candidate Starts for Nodigi_1:

(Start: 15 @50 has 14 MA's), (Start: 23 @89 has 15 MA's), (39, 179), (54, 263), (69, 356), (74, 404), (84, 491),

Gene: Origami_1 Start: 132, Stop: 563, Start Num: 23

Candidate Starts for Origami_1:

(Start: 23 @132 has 15 MA's), (42, 228), (79, 519),

Gene: Orla_1 Start: 49, Stop: 504, Start Num: 15

Candidate Starts for Orla_1:

(Start: 15 @49 has 14 MA's), (Start: 23 @88 has 15 MA's), (39, 178), (54, 262), (69, 355), (74, 403), (84, 490),

Gene: PaintedDog_1 Start: 68, Stop: 541, Start Num: 23

Candidate Starts for PaintedDog_1:

(8, 14), (Start: 21 @62 has 2 MA's), (Start: 23 @68 has 15 MA's), (37, 152), (58, 293), (60, 305), (61, 308), (65, 341), (67, 353), (85, 509),

Gene: PandaPo_1 Start: 87, Stop: 554, Start Num: 23

Candidate Starts for PandaPo_1:

(Start: 23 @87 has 15 MA's), (46, 216), (77, 453), (81, 504), (88, 525), (90, 534),

Gene: Poise_33 Start: 9822, Stop: 10175, Start Num: 33

Candidate Starts for Poise_33:

(Start: 16 @9732 has 1 MA's), (Start: 18 @9741 has 2 MA's), (Start: 33 @9822 has 5 MA's), (55, 9942), (60, 9972), (69, 10032), (86, 10167),

Gene: Pons_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for Pons_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: PotPie_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for PotPie_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (49, 224), (54, 272), (56, 284), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Pringar_33 Start: 10053, Stop: 10487, Start Num: 19

Candidate Starts for Pringar_33:

(1, 9918), (Start: 19 @10053 has 18 MA's), (Start: 33 @10134 has 5 MA's), (55, 10254), (60, 10284), (69, 10344), (86, 10479),

Gene: PsychoKiller_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for PsychoKiller_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (54, 271), (62, 319), (69, 364),

Gene: Quasar_1 Start: 679, Stop: 1164, Start Num: 14

Candidate Starts for Quasar_1:

(Start: 14 @679 has 1 MA's), (Start: 29 @757 has 1 MA's), (39, 808), (51, 862), (54, 892), (56, 904), (62, 940), (69, 985),

Gene: QueenHazel_1 Start: 67, Stop: 540, Start Num: 23

Candidate Starts for QueenHazel_1:

(20, 55), (Start: 23 @67 has 15 MA's), (37, 151), (44, 187), (58, 292), (60, 304), (61, 307), (65, 340), (67, 352), (72, 403), (83, 499), (85, 508),

Gene: RADical_1 Start: 53, Stop: 544, Start Num: 12

Candidate Starts for RADical_1:

(Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (49, 224), (51, 242), (54, 272), (62, 320), (69, 365),

Gene: RSchmailzl_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for RSchmailzl_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364), (92, 526),

Gene: Raela_33 Start: 10296, Stop: 10730, Start Num: 18

Candidate Starts for Raela_33:

(Start: 16 @10287 has 1 MA's), (Start: 18 @10296 has 2 MA's), (Start: 33 @10377 has 5 MA's), (55, 10497), (60, 10527), (69, 10587), (86, 10722),

Gene: RanchParmCat_1 Start: 49, Stop: 504, Start Num: 15

Candidate Starts for RanchParmCat_1:

(Start: 15 @49 has 14 MA's), (54, 262), (69, 355), (74, 403), (84, 490),

Gene: RedBaron_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for RedBaron_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364), (92, 526),

Gene: RedRaider77_33 Start: 10197, Stop: 10631, Start Num: 19

Candidate Starts for RedRaider77_33:

(1, 10062), (Start: 19 @10197 has 18 MA's), (Start: 33 @10278 has 5 MA's), (55, 10398), (60, 10428), (69, 10488), (86, 10623),

Gene: Reedo_1 Start: 95, Stop: 547, Start Num: 23

Candidate Starts for Reedo_1:

(Start: 23 @95 has 15 MA's), (27, 122), (46, 224), (81, 497), (88, 518), (90, 527),

Gene: SPB78_1 Start: 51220, Stop: 426, Start Num: 15

Candidate Starts for SPB78_1:

(6, 51184), (Start: 15 @51220 has 14 MA's), (17, 51229), (Start: 29 @51298 has 1 MA's), (45, 51373), (50, 51406), (73, 51580),

Gene: SheckWes_1 Start: 98, Stop: 547, Start Num: 23

Candidate Starts for SheckWes_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (56, 284), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: SketchMex_1 Start: 52, Stop: 534, Start Num: 12

Candidate Starts for SketchMex_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (69, 364), (74, 412), (91, 523),

Gene: Snek_2 Start: 958, Stop: 1422, Start Num: 23

Candidate Starts for Snek_2:

(Start: 23 @958 has 15 MA's), (62, 1207), (88, 1396), (90, 1405),

Gene: Socotra_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Socotra_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: Sopespian_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Sopespian_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (54, 271), (62, 319), (69, 364),

Gene: Starburst_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Starburst_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: SteamedHams_1 Start: 59, Stop: 535, Start Num: 15

Candidate Starts for SteamedHams_1:

(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: Success_49 Start: 25367, Stop: 25792, Start Num: 22

Candidate Starts for Success_49:

(Start: 22 @25367 has 2 MA's), (Start: 29 @25412 has 1 MA's), (34, 25433), (57, 25568), (61, 25586), (64, 25619), (71, 25664), (73, 25688), (79, 25748), (80, 25754),

Gene: SummitAcademy_1 Start: 56, Stop: 547, Start Num: 13

Candidate Starts for SummitAcademy_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Survivors_2 Start: 426, Stop: 911, Start Num: 13

Candidate Starts for Survivors_2:

(7, 399), (Start: 13 @426 has 20 MA's), (Start: 29 @507 has 1 MA's), (54, 660), (58, 681), (69, 753), (72, 792),

Gene: SweatNTears_2 Start: 757, Stop: 1155, Start Num: 29

Candidate Starts for SweatNTears_2:

(Start: 14 @679 has 1 MA's), (Start: 29 @757 has 1 MA's), (39, 808), (51, 862), (54, 892), (56, 904), (62, 940), (69, 985), (91, 1144),

Gene: Tarnish_1 Start: 98, Stop: 547, Start Num: 23

Candidate Starts for Tarnish_1:

(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (48, 221), (49, 224), (54, 272), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Tesla_32 Start: 10046, Stop: 10480, Start Num: 19

Candidate Starts for Tesla_32:

(1, 9911), (Start: 19 @10046 has 18 MA's), (Start: 33 @10127 has 5 MA's), (55, 10247), (60, 10277), (69, 10337), (86, 10472),

Gene: Tolls_1 Start: 59, Stop: 535, Start Num: 15

Candidate Starts for Tolls_1:

(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (62, 320), (69, 365), (74, 413), (91, 524),

Gene: Troje_1 Start: 53, Stop: 535, Start Num: 12

Candidate Starts for Troje_1:

(5, 14), (Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (51, 242), (54, 272), (69, 365), (74, 413), (91, 524),

Gene: Tweety19_2 Start: 958, Stop: 1422, Start Num: 23

Candidate Starts for Tweety19_2:

(Start: 23 @958 has 15 MA's), (62, 1207), (88, 1396), (90, 1405),

Gene: Typhonomachy_1 Start: 52, Stop: 543, Start Num: 12

Candidate Starts for Typhonomachy_1:

(6, 22), (Start: 12 @52 has 19 MA's), (Start: 23 @97 has 15 MA's), (39, 187), (49, 223), (51, 241), (54, 271), (62, 319), (69, 364),

Gene: VResidence_1 Start: 140, Stop: 604, Start Num: 23

Candidate Starts for VResidence_1:

(Start: 23 @140 has 15 MA's), (27, 167), (52, 314), (75, 503), (81, 557), (88, 578), (90, 587),

Gene: VWB_1 Start: 1, Stop: 480, Start Num: 15

Candidate Starts for VWB_1:

(Start: 15 @1 has 14 MA's), (17, 10), (28, 76), (45, 154), (50, 187), (73, 361), (74, 364),

Gene: VasuNzinga_33 Start: 9630, Stop: 10064, Start Num: 19

Candidate Starts for VasuNzinga_33:

(1, 9495), (Start: 19 @9630 has 18 MA's), (Start: 33 @9711 has 5 MA's), (55, 9831), (60, 9861), (69, 9921), (86, 10056),

Gene: Vine_2 Start: 681, Stop: 1172, Start Num: 13

Candidate Starts for Vine_2:

(Start: 13 @681 has 20 MA's), (24, 732), (Start: 29 @762 has 1 MA's), (39, 813), (49, 849), (54, 897), (56, 909), (62, 945), (68, 984), (69, 990), (72, 1029), (74, 1038), (76, 1059),

Gene: VroomVroom_1 Start: 132, Stop: 563, Start Num: 23

Candidate Starts for VroomVroom_1:
(Start: 23 @132 has 15 MA's), (42, 228), (64, 393), (79, 519),

Gene: Wolfwood_2 Start: 425, Stop: 922, Start Num: 13
Candidate Starts for Wolfwood_2:
(7, 398), (Start: 13 @425 has 20 MA's), (Start: 29 @506 has 1 MA's), (54, 659), (58, 680), (69, 752),
(72, 791), (89, 899),

Gene: Xula_1 Start: 67, Stop: 540, Start Num: 23
Candidate Starts for Xula_1:
(20, 55), (Start: 23 @67 has 15 MA's), (37, 151), (44, 187), (58, 292), (60, 304), (61, 307), (65, 340),
(67, 352), (72, 403), (85, 508),

Gene: Yakult_1 Start: 48, Stop: 503, Start Num: 15
Candidate Starts for Yakult_1:
(Start: 15 @48 has 14 MA's), (Start: 31 @135 has 1 MA's), (39, 177), (54, 261), (69, 354), (74, 402),
(84, 489),

Gene: Yarn_1 Start: 59, Stop: 535, Start Num: 15
Candidate Starts for Yarn_1:
(5, 14), (Start: 15 @59 has 14 MA's), (24, 107), (39, 188), (51, 242), (54, 272), (62, 320), (69, 365), (74,
413), (91, 524),

Gene: Yucky_1 Start: 56, Stop: 547, Start Num: 13
Candidate Starts for Yucky_1:
(Start: 13 @56 has 20 MA's), (Start: 23 @98 has 15 MA's), (Start: 31 @146 has 1 MA's), (49, 224), (54,
272), (56, 284), (68, 359), (69, 365), (72, 404), (74, 413), (76, 434),

Gene: Yummy_1 Start: 53, Stop: 535, Start Num: 12
Candidate Starts for Yummy_1:
(5, 14), (Start: 12 @53 has 19 MA's), (Start: 23 @98 has 15 MA's), (39, 188), (51, 242), (54, 272), (69,
365), (74, 413), (91, 524),

Gene: Zareef_2 Start: 426, Stop: 923, Start Num: 13
Candidate Starts for Zareef_2:
(7, 399), (Start: 13 @426 has 20 MA's), (Start: 29 @507 has 1 MA's), (54, 660), (58, 681), (69, 753),
(72, 792), (89, 900),