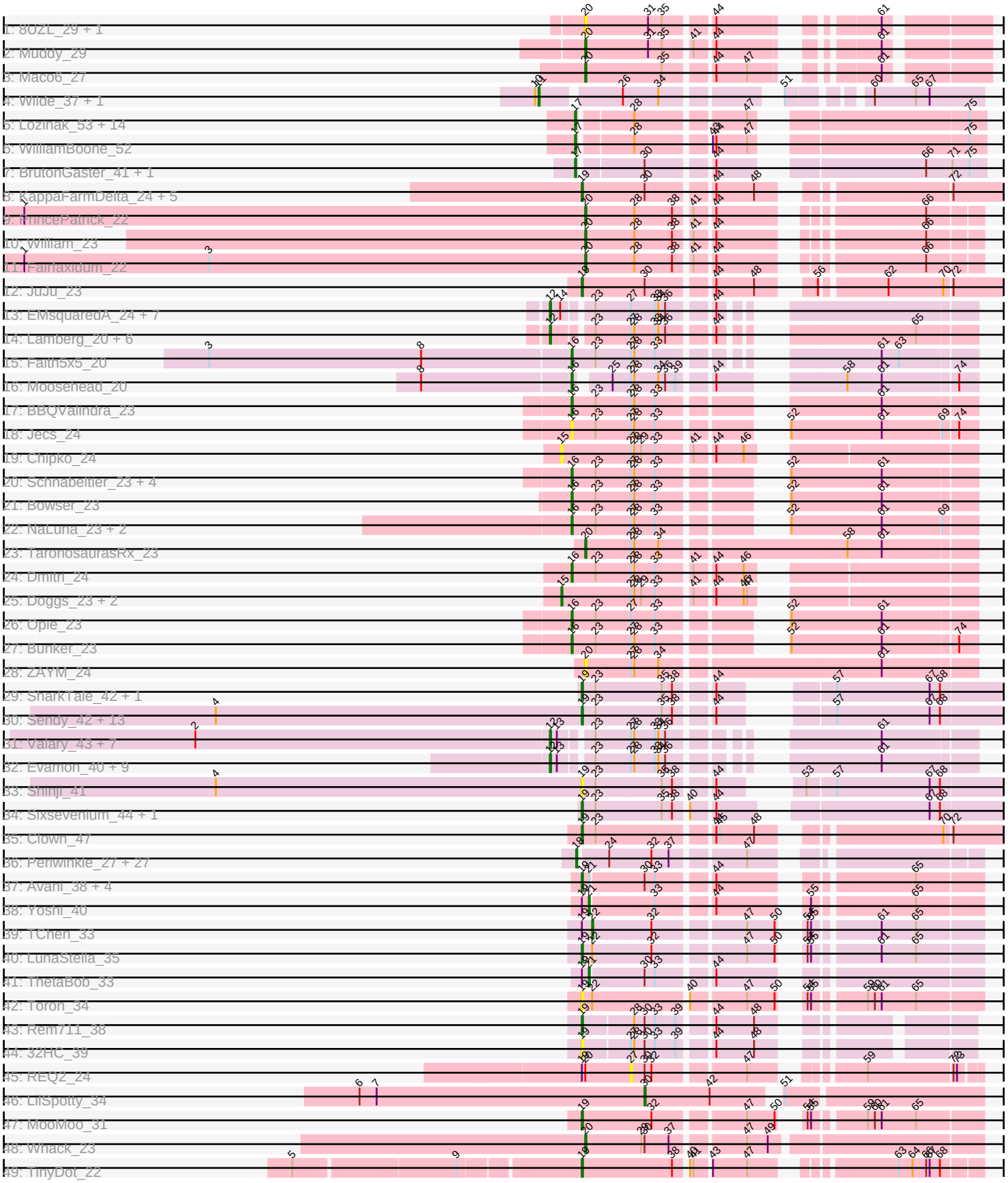
Pham 345465


1: 8OZL_29 + 1
2: Muddy_29
3: Maco6_27
4: Wilde_37 + 1
5: Lozinak_53 + 14
6: WilliamBoone_52
7: BrutonGaster_41 + 1
8: KappaFarmDelta_24 + 5
9: PrinceFatrick_22
10: William_23
11: Fairfaxidum_22
12: JuJu_23
13: EMsquaredA_24 + 7
14: Lamberg_20 + 6
15: Faith5x5_20
16: Moosehead_20
17: BBQValindra_23
18: Jecs_24
19: Chipko_24
20: Schnabeltier_23 + 4
21: Bowser_23
22: NaLuna_23 + 2
23: TaronosaurasRx_23
24: Dmitri_24
25: Doggs_23 + 2
26: Opie_23
27: Bunker_23
28: ZAYM_24
29: SharkTale_42 + 1
30: Sendy_42 + 13
31: Valary_43 + 7
32: Evamon_40 + 9
33: Shinji_41
34: Sixsevenium_44 + 1
35: Clown_47
36: Periwinkle_27 + 27
37: Avani_38 + 4
38: Yoshi_40
39: TChen_33
40: LunaStella_35
41: ThetaBob_33
42: Toron_34
43: Rem711_38
44: 32HC_39
45: REQ2_24
46: LilSpotty_34
47: MooMoo_31
48: Whack_23
49: TinyDot_22

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 345465 Report

This analysis was run 11/14/26 on database version 672.

Pham number 345465 has 154 members, 17 are drafts.

Phages represented in each track:
• Track 1 : 8UZL_29, FF47_29
• Track 2 : Muddy_29
• Track 3 : Maco6_27
• Track 4 : Wilde_37, Tank_37
• Track 5 : Lozinak_53, ClubL_52, Engineer_54, Miskis_50, Bachita_54, Norvs_53, Dusty_51, Geeche_51, PhinkBoden_52, Abscondus_51, Cucurbita_54, Culver_52, Smoothie_54, Toniann_52, Aphelion_52
• Track 6 : WilliamBoone_52
• Track 7 : BrutonGaster_41, OneUp_46
• Track 8 : KappaFarmDelta_24, Soilmate_23, Obliviate_22, ZiggyZoo_22, CarolAnn_23, Blino_23
• Track 9 : PrincePatrick_22
• Track 10 : William_23
• Track 11 : Fairfaxidum_22
• Track 12 : JuJu_23
• Track 13 : EMsquaredA_24, Pollux_24, Marteena_24, BritBrat_24, Lilas_24, Bradissa_24, EnalisNailo_24, Floral_24
• Track 14 : Lamberg_20, Lton_20, EdnaMode_20, Nettuno_20, Matteo_20, Pepperoni_21, Pickett_20
• Track 15 : Faith5x5_20
• Track 16 : Moosehead_20
• Track 17 : BBQValindra_23
• Track 18 : Jecs_24
• Track 19 : Chipko_24
• Track 20 : Schnabeltier_23, Angelique_25, BackstagePass_23, Eyes_23, MagicMan_23
• Track 21 : Bowser_23
• Track 22 : NaLuna_23, HannahD_23, GEazy_23
• Track 23 : TaronosaurasRx_23
• Track 24 : Dmitri_24
• Track 25 : Doggs_23, RayTheFireFly_24, Coriander_24
• Track 26 : Opie_23
• Track 27 : Bunker_23
• Track 28 : ZAYM_24
• Track 29 : SharkTale_42, YungMoney_44
• Track 30 : Sendy_42, ClamChowder_43, Phlop_40, Fugax_44, Egi03_41, Togo_40, Mutzi_40, Fireball_42, Barb_43, PullumCavea_40, PinkCoffee_43, TillyBobJoe_41,

SmokingBunny_41, Nubi_41
• Track 31 : Valary_43, KimmyK_42, Wizard_40, Arri_44, VanDeWege_44, RogerDodger_44, CherryCola_43, Gezellig_40
• Track 32 : Evamon_40, Portcullis_42, Halo3_41, Twister6_43, JohnPork_42, Salvador_40, Danyall_43, Savbucketdawg_41, Jambalaya_41, CoveyB_44
• Track 33 : Shinji_41
• Track 34 : Sixsevenium_44, Bakery_46
• Track 35 : Clown_47
• Track 36 : Periwinkle_27, ShawBrad_25, Phistory_26, Kamaru_25, Malisha_26, Horus_25, Phabuloso_24, Getalong_26, Lutum_25, CheeseTouch_25, Frickyeah_24, BearBQ_24, Kenna_24, Crater_23, Birdsong_24, Holliday_25, Apricot_24, Budski_25, BENtherdunthat_25, LitninMcQueen_24, Asapag_25, Leroy_25, Squiddly_27, MortyNRick_24, Kuwabara_24, BotCity_25, Spooky_25, Whitney_26
• Track 37 : Avani_38, Jabbawokkie_41, Che9d_38, Zapner_40, Demsculpinboyz_39
• Track 38 : Yoshi_40
• Track 39 : TChen_33
• Track 40 : LunaStella_35
• Track 41 : ThetaBob_33
• Track 42 : Toron_34
• Track 43 : Rem711_38
• Track 44 : 32HC_39
• Track 45 : REQ2_24
• Track 46 : LilSpotty_34
• Track 47 : MooMoo_31
• Track 48 : Whack_23
• Track 49 : TinyDot_22

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

The start number called the most often in the published annotations is 12, it was called in 32 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arri_44, Bradissa_24, BritBrat_24, CherryCola_43, CoveyB_44, Danyall_43, EMsquaredA_24, EdnaMode_20, EnalisNailo_24, Evamon_40, Floral_24, Gezellig_40, Halo3_41, Jambalaya_41, JohnPork_42, KimmyK_42, Lamberg_20, Lilas_24, Lton_20, Marteena_24, Matteo_20, Nettuno_20, Pepperoni_21, Pickett_20, Pollux_24, Portcullis_42, RogerDodger_44, Salvador_40, Savbucketdawg_41, Twister6_43, Valary_43, VanDeWege_44, Wizard_40,

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

Genes that do not have the "Most Annotated" start:
• 32HC_39, 8UZL_29, Abscondus_51, Angelique_25, Aphelion_52, Apricot_24, Asapag_25, Avani_38, BBQValindra_23, BENtherdunthat_25, Bachita_54, BackstagePass_23, Bakery_46, Barb_43, BearBQ_24, Birdsong_24, Blino_23, BotCity_25, Bowser_23, BrutonGaster_41, Budski_25, Bunker_23, CarolAnn_23, Che9d_38, CheeseTouch_25, Chipko_24, ClamChowder_43, Clown_47, ClubL_52, Coriander_24, Crater_23, Cucurbita_54, Culver_52, Demsculpinboyz_39, Dmitri_24,

Doggs_23, Dusty_51, Egi03_41, Engineer_54, Eyes_23, FF47_29, Fairfaxidum_22, Faith5x5_20, Fireball_42, Frickyeah_24, Fugax_44, GEazy_23, Geeche_51, Getalong_26, HannahD_23, Holliday_25, Horus_25, Jabbawokkie_41, Jecs_24, JuJu_23, Kamaru_25, KappaFarmDelta_24, Kenna_24, Kuwabara_24, Leroy_25, LilSpotty_34, LitninMcQueen_24, Lozinak_53, LunaStella_35, Lutum_25, Maco6_27, MagicMan_23, Malisha_26, Miskis_50, MooMoo_31, Moosehead_20, MortyNRick_24, Muddy_29, Mutzi_40, NaLuna_23, Norvs_53, Nubi_41, Obliviate_22, OneUp_46, Opie_23, Periwinkle_27, Phabuloso_24, PhinkBoden_52, Phistory_26, Phlop_40, PinkCoffee_43, PrincePatrick_22, PullumCavea_40, REQ2_24, RayTheFireFly_24, Rem711_38, Schnabeltier_23, Sendy_42, SharkTale_42, ShawBrad_25, Shinji_41, Sixsevenium_44, SmokingBunny_41, Smoothie_54, Soilmate_23, Spooky_25, Squiddly_27, TChen_33, Tank_37, TaronosaurasRx_23, ThetaBob_33, TillyBobJoe_41, TinyDot_22, Togo_40, Toniann_52, Toron_34, Whack_23, Whitney_26, Wilde_37, WilliamBoone_52, William_23, Yoshi_40, YungMoney_44, ZAYM_24, Zapner_40, ZiggyZoo_22,

Summary by start number:

Start 11:
• Found in 2 of 154 (1.3%) of genes in pham
• Manual Annotations of this start: 2 of 137
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Tank_37 (AP1), Wilde_37 (AP1),

Start 12:
• Found in 33 of 154 (21.4%) of genes in pham
• Manual Annotations of this start: 32 of 137
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arri_44 (DC1), Bradissa_24 (CY1), BritBrat_24 (CY2), CherryCola_43 (DC1), CoveyB_44 (DC1), Danyall_43 (DC1), EMsquaredA_24 (CY1), EdnaMode_20 (CZ2), EnalisNailo_24 (CY1), Evamon_40 (DC1), Floral_24 (CY1), Gezellig_40 (DC1), Halo3_41 (DC1), Jambalaya_41 (DC1), JohnPork_42 (DC1), KimmyK_42 (DC1), Lamberg_20 (CZ2), Lilas_24 (CY1), Lton_20 (CZ), Marteena_24 (CY1), Matteo_20 (CZ2), Nettuno_20 (CZ2), Pepperoni_21 (CZ), Pickett_20 (CZ2), Pollux_24 (CY1), Portcullis_42 (DC1), RogerDodger_44 (DC1), Salvador_40 (DC1), Savbucketdawg_41 (DC1), Twister6_43 (DC1), Valary_43 (DC1), VanDeWege_44 (DC1), Wizard_40 (DC1),

Start 15:
• Found in 4 of 154 (2.6%) of genes in pham
• Manual Annotations of this start: 3 of 137
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chipko_24 (DB), Coriander_24 (DB), Doggs_23 (DB), RayTheFireFly_24 (DB),

Start 16:
• Found in 16 of 154 (10.4%) of genes in pham
• Manual Annotations of this start: 14 of 137
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Angelique_25 (CY1), BBQValindra_23 (DB), BackstagePass_23 (DB), Bowser_23 (DB), Bunker_23 (DB), Dmitri_24 (DB), Eyes_23 (DB), Faith5x5_20 (CZ6), GEazy_23 (DB), HannahD_23 (DB), Jecs_24 (DB), MagicMan_23 (DB), Moosehead_20 (CZ6), NaLuna_23 (DB), Opie_23 (DB),

Schnabeltier_23 (DB),

Start 17:
• Found in 18 of 154 (11.7%) of genes in pham
• Manual Annotations of this start: 17 of 137
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abscondus_51 (CQ1), Aphelion_52 (CQ1), Bachita_54 (CQ1), BrutonGaster_41 (CQ2), ClubL_52 (CQ1), Cucurbita_54 (CQ1), Culver_52 (CQ1), Dusty_51 (CQ1), Engineer_54 (CQ1), Geeche_51 (CQ1), Lozinak_53 (CQ1), Miskis_50 (CQ1), Norvs_53 (CQ1), OneUp_46 (CQ2), PhinkBoden_52 (CQ1), Smoothie_54 (CQ1), Toniann_52 (CQ1), WilliamBoone_52 (CQ1),

Start 18:
• Found in 28 of 154 (18.2%) of genes in pham
• Manual Annotations of this start: 27 of 137
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Apricot_24 (DN3), Asapag_25 (DN1), BENtherdunthat_25 (DN1), BearBQ_24 (DN), Birdsong_24 (DN), BotCity_25 (DN), Budski_25 (DN), CheeseTouch_25 (DN1), Crater_23 (DN3), Frickyeah_24 (DN1), Getalong_26 (DN1), Holliday_25 (DN1), Horus_25 (DN1), Kamaru_25 (DN1), Kenna_24 (DN1), Kuwabara_24 (DN4), Leroy_25 (DN1), LitninMcQueen_24 (DN1), Lutum_25 (DN1), Malisha_26 (DN), MortyNRick_24 (DN), Periwinkle_27 (DN1), Phabuloso_24 (DN1), Phistory_26 (DN1), ShawBrad_25 (DN1), Spooky_25 (DN2), Squiddly_27 (DN2), Whitney_26 (DN1),

Start 19:
• Found in 42 of 154 (27.3%) of genes in pham
• Manual Annotations of this start: 31 of 137
• Called 90.5% of time when present
• Phage (with cluster) where this start called: 32HC_39 (Z), Avani_38 (F2), Bakery_46 (DC1), Barb_43 (DC1), Blino_23 (CV), CarolAnn_23 (CV), Che9d_38 (F2), ClamChowder_43 (DC1), Clown_47 (DC2), Demsculpinboyz_39 (F2), Egi03_41 (DC1), Fireball_42 (DC1), Fugax_44 (DC1), Jabbawokkie_41 (F2), JuJu_23 (CV), KappaFarmDelta_24 (CV), LunaStella_35 (F4), MooMoo_31 (singleton), Mutzi_40 (DC1), Nubi_41 (DC1), Obliviate_22 (CV), Phlop_40 (DC1), PinkCoffee_43 (DC1), PullumCavea_40 (DC1), Rem711_38 (Z), Sendy_42 (DC1), SharkTale_42 (DC1), Shinji_41 (DC1), Sixsevenium_44 (DC1), SmokingBunny_41 (DC1), Soilmate_23 (CV), TillyBobJoe_41 (DC1), TinyDot_22 (singleton), Togo_40 (DC1), Toron_34 (F6), YungMoney_44 (DC1), Zapner_40 (F2), ZiggyZoo_22 (CV),

Start 20:
• Found in 11 of 154 (7.1%) of genes in pham
• Manual Annotations of this start: 7 of 137
• Called 90.9% of time when present
• Phage (with cluster) where this start called: 8UZL_29 (AB), FF47_29 (AB), Fairfaxidum_22 (CV), Maco6_27 (AB), Muddy_29 (AB), PrincePatrick_22 (CV), TaronosaurasRx_23 (DB), Whack_23 (singleton), William_23 (CV), ZAYM_24 (DB),

Start 21:
• Found in 7 of 154 (4.5%) of genes in pham
• Manual Annotations of this start: 2 of 137
• Called 28.6% of time when present

• Phage (with cluster) where this start called: ThetaBob_33 (F4), Yoshi_40 (F2),

Start 22:
• Found in 3 of 154 (1.9%) of genes in pham
• Manual Annotations of this start: 1 of 137
• Called 33.3% of time when present
• Phage (with cluster) where this start called: TChen_33 (F4),

Start 27:
• Found in 57 of 154 (37.0%) of genes in pham
• No Manual Annotations of this start.
• Called 1.8% of time when present
• Phage (with cluster) where this start called: REQ2_24 (singleton),

Start 30:
• Found in 20 of 154 (13.0%) of genes in pham
• Manual Annotations of this start: 1 of 137
• Called 5.0% of time when present
• Phage (with cluster) where this start called: LilSpotty_34 (singleton),

Summary by clusters:

There are 23 clusters represented in this pham: DN, singleton, CZ2, AP1, CZ6, DN4, DN1, DN3, DN2, CQ2, CQ1, CY2, CY1, AB, DB, CZ, Z, DC2, CV, DC1, F2, F4, F6,

Info for manual annotations of cluster AB:
•Start number 20 was manually annotated 2 times for cluster AB.

Info for manual annotations of cluster AP1:
•Start number 11 was manually annotated 2 times for cluster AP1.

Info for manual annotations of cluster CQ1:
•Start number 17 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 17 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CV:
•Start number 19 was manually annotated 6 times for cluster CV.
•Start number 20 was manually annotated 3 times for cluster CV.

Info for manual annotations of cluster CY1:
•Start number 12 was manually annotated 7 times for cluster CY1.
•Start number 16 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY2:
•Start number 12 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ:
•Start number 12 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ2:
•Start number 12 was manually annotated 5 times for cluster CZ2.

Info for manual annotations of cluster CZ6:
•Start number 16 was manually annotated 2 times for cluster CZ6.

Info for manual annotations of cluster DB:
•Start number 15 was manually annotated 3 times for cluster DB.
•Start number 16 was manually annotated 11 times for cluster DB.
•Start number 20 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DC1:
•Start number 12 was manually annotated 17 times for cluster DC1.
•Start number 19 was manually annotated 15 times for cluster DC1.

Info for manual annotations of cluster DC2:
•Start number 19 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DN:
•Start number 18 was manually annotated 6 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 18 was manually annotated 16 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 18 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 18 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:
•Start number 18 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster F2:
•Start number 19 was manually annotated 5 times for cluster F2.
•Start number 21 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:
•Start number 19 was manually annotated 1 time for cluster F4.
•Start number 21 was manually annotated 1 time for cluster F4.
•Start number 22 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster Z:
•Start number 19 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_39 Start: 30201, Stop: 30482, Start Num: 19
Candidate Starts for 32HC_39:
(Start: 19 @30201 has 31 MA's), (27, 30240), (28, 30243), (Start: 30 @30252 has 1 MA's), (33, 30261), (39, 30279), (44, 30303), (48, 30336),

Gene: 8UZL_29 Start: 24298, Stop: 24582, Start Num: 20
Candidate Starts for 8UZL_29:
(Start: 20 @24298 has 7 MA's), (31, 24352), (35, 24364), (44, 24400), (61, 24502),

Gene: Abscondus_51 Start: 33043, Stop: 33345, Start Num: 17
Candidate Starts for Abscondus_51:
(Start: 17 @33043 has 17 MA's), (28, 33085), (47, 33172), (75, 33331),

Gene: Angelique_25 Start: 21914, Stop: 22216, Start Num: 16
Candidate Starts for Angelique_25:
(Start: 16 @21914 has 14 MA's), (23, 21935), (27, 21965), (28, 21968), (33, 21986), (52, 22061), (61, 22139),

Gene: Aphelion_52 Start: 33312, Stop: 33614, Start Num: 17
Candidate Starts for Aphelion_52:
(Start: 17 @33312 has 17 MA's), (28, 33354), (47, 33441), (75, 33600),

Gene: Apricot_24 Start: 20126, Stop: 20425, Start Num: 18
Candidate Starts for Apricot_24:
(Start: 18 @20126 has 27 MA's), (24, 20150), (32, 20186), (37, 20201), (47, 20258),

Gene: Arri_44 Start: 35477, Stop: 35776, Start Num: 12
Candidate Starts for Arri_44:
(2, 35168), (Start: 12 @35477 has 32 MA's), (13, 35483), (23, 35507), (27, 35537), (28, 35540), (33, 35558), (34, 35561), (36, 35567), (61, 35699),

Gene: Asapag_25 Start: 20568, Stop: 20867, Start Num: 18
Candidate Starts for Asapag_25:
(Start: 18 @20568 has 27 MA's), (24, 20592), (32, 20628), (37, 20643), (47, 20700),

Gene: Avani_38 Start: 28254, Stop: 28553, Start Num: 19
Candidate Starts for Avani_38:
(Start: 19 @28254 has 31 MA's), (Start: 21 @28260 has 2 MA's), (Start: 30 @28305 has 1 MA's), (33, 28314), (44, 28356), (65, 28497),

Gene: BBQValindra_23 Start: 20531, Stop: 20833, Start Num: 16
Candidate Starts for BBQValindra_23:
(Start: 16 @20531 has 14 MA's), (23, 20552), (27, 20582), (28, 20585), (33, 20603), (61, 20756),

Gene: BENtherdunthat_25 Start: 20565, Stop: 20864, Start Num: 18
Candidate Starts for BENtherdunthat_25:
(Start: 18 @20565 has 27 MA's), (24, 20589), (32, 20625), (37, 20640), (47, 20697),

Gene: Bachita_54 Start: 33745, Stop: 34047, Start Num: 17
Candidate Starts for Bachita_54:
(Start: 17 @33745 has 17 MA's), (28, 33787), (47, 33874), (75, 34033),

Gene: BackstagePass_23 Start: 20663, Stop: 20965, Start Num: 16
Candidate Starts for BackstagePass_23:
(Start: 16 @20663 has 14 MA's), (23, 20684), (27, 20714), (28, 20717), (33, 20735), (52, 20810), (61, 20888),

Gene: Bakery_46 Start: 36522, Stop: 36848, Start Num: 19

Candidate Starts for Bakery_46:
(Start: 19 @36522 has 31 MA's), (23, 36534), (35, 36591), (38, 36600), (40, 36609), (44, 36627), (67, 36780), (68, 36789),

Gene: Barb_43 Start: 35506, Stop: 35820, Start Num: 19
Candidate Starts for Barb_43:
(4, 35185), (Start: 19 @35506 has 31 MA's), (23, 35518), (35, 35575), (38, 35584), (44, 35611), (57, 35671), (67, 35752), (68, 35761),

Gene: BearBQ_24 Start: 21405, Stop: 21704, Start Num: 18
Candidate Starts for BearBQ_24:
(Start: 18 @21405 has 27 MA's), (24, 21429), (32, 21465), (37, 21480), (47, 21537),

Gene: Birdsong_24 Start: 20298, Stop: 20597, Start Num: 18
Candidate Starts for Birdsong_24:
(Start: 18 @20298 has 27 MA's), (24, 20322), (32, 20358), (37, 20373), (47, 20430),

Gene: Blino_23 Start: 20354, Stop: 20677, Start Num: 19
Candidate Starts for Blino_23:
(Start: 19 @20354 has 31 MA's), (Start: 30 @20408 has 1 MA's), (44, 20459), (48, 20492), (72, 20630),

Gene: BotCity_25 Start: 20566, Stop: 20865, Start Num: 18
Candidate Starts for BotCity_25:
(Start: 18 @20566 has 27 MA's), (24, 20590), (32, 20626), (37, 20641), (47, 20698),

Gene: Bowser_23 Start: 20442, Stop: 20744, Start Num: 16
Candidate Starts for Bowser_23:
(Start: 16 @20442 has 14 MA's), (23, 20463), (27, 20493), (28, 20496), (33, 20514), (52, 20589), (61, 20667),

Gene: Bradissa_24 Start: 21187, Stop: 21486, Start Num: 12
Candidate Starts for Bradissa_24:
(Start: 12 @21187 has 32 MA's), (14, 21196), (23, 21217), (27, 21247), (33, 21268), (34, 21271), (36, 21277), (44, 21310),

Gene: BritBrat_24 Start: 21040, Stop: 21339, Start Num: 12
Candidate Starts for BritBrat_24:
(Start: 12 @21040 has 32 MA's), (14, 21049), (23, 21070), (27, 21100), (33, 21121), (34, 21124), (36, 21130), (44, 21163),

Gene: BrutonGaster_41 Start: 30429, Stop: 30731, Start Num: 17
Candidate Starts for BrutonGaster_41:
(Start: 17 @30429 has 17 MA's), (Start: 30 @30480 has 1 MA's), (44, 30531), (66, 30681), (71, 30702), (75, 30717),

Gene: Budski_25 Start: 20673, Stop: 20972, Start Num: 18
Candidate Starts for Budski_25:
(Start: 18 @20673 has 27 MA's), (24, 20697), (32, 20733), (37, 20748), (47, 20805),

Gene: Bunker_23 Start: 20642, Stop: 20944, Start Num: 16
Candidate Starts for Bunker_23:
(Start: 16 @20642 has 14 MA's), (23, 20663), (27, 20693), (28, 20696), (33, 20714), (52, 20789), (61, 20867), (74, 20930),

Gene: CarolAnn_23 Start: 20353, Stop: 20676, Start Num: 19
Candidate Starts for CarolAnn_23:
(Start: 19 @20353 has 31 MA's), (Start: 30 @20407 has 1 MA's), (44, 20458), (48, 20491), (72, 20629),

Gene: Che9d_38 Start: 28263, Stop: 28562, Start Num: 19
Candidate Starts for Che9d_38:
(Start: 19 @28263 has 31 MA's), (Start: 21 @28269 has 2 MA's), (Start: 30 @28314 has 1 MA's), (33, 28323), (44, 28365), (65, 28506),

Gene: CheeseTouch_25 Start: 20559, Stop: 20858, Start Num: 18
Candidate Starts for CheeseTouch_25:
(Start: 18 @20559 has 27 MA's), (24, 20583), (32, 20619), (37, 20634), (47, 20691),

Gene: CherryCola_43 Start: 36250, Stop: 36549, Start Num: 12
Candidate Starts for CherryCola_43:
(2, 35941), (Start: 12 @36250 has 32 MA's), (13, 36256), (23, 36280), (27, 36310), (28, 36313), (33, 36331), (34, 36334), (36, 36340), (61, 36472),

Gene: Chipko_24 Start: 21596, Stop: 21910, Start Num: 15
Candidate Starts for Chipko_24:
(Start: 15 @21596 has 3 MA's), (27, 21656), (28, 21659), (29, 21665), (33, 21677), (41, 21704), (44, 21719), (46, 21743),

Gene: ClamChowder_43 Start: 35506, Stop: 35820, Start Num: 19
Candidate Starts for ClamChowder_43:
(4, 35185), (Start: 19 @35506 has 31 MA's), (23, 35518), (35, 35575), (38, 35584), (44, 35611), (57, 35671), (67, 35752), (68, 35761),

Gene: Clown_47 Start: 37663, Stop: 37989, Start Num: 19
Candidate Starts for Clown_47:
(Start: 19 @37663 has 31 MA's), (23, 37675), (44, 37768), (45, 37771), (48, 37801), (70, 37933), (72, 37939),

Gene: ClubL_52 Start: 33234, Stop: 33536, Start Num: 17
Candidate Starts for ClubL_52:
(Start: 17 @33234 has 17 MA's), (28, 33276), (47, 33363), (75, 33522),

Gene: Coriander_24 Start: 21581, Stop: 21895, Start Num: 15
Candidate Starts for Coriander_24:
(Start: 15 @21581 has 3 MA's), (27, 21641), (28, 21644), (29, 21650), (33, 21662), (41, 21689), (44, 21704), (46, 21728), (47, 21731),

Gene: CoveyB_44 Start: 35295, Stop: 35594, Start Num: 12
Candidate Starts for CoveyB_44:
(Start: 12 @35295 has 32 MA's), (13, 35301), (23, 35325), (27, 35355), (28, 35358), (33, 35376), (34, 35379), (36, 35385), (61, 35517),

Gene: Crater_23 Start: 20126, Stop: 20425, Start Num: 18
Candidate Starts for Crater_23:
(Start: 18 @20126 has 27 MA's), (24, 20150), (32, 20186), (37, 20201), (47, 20258),

Gene: Cucurbita_54 Start: 34604, Stop: 34906, Start Num: 17

Candidate Starts for Cucurbita_54:
(Start: 17 @34604 has 17 MA's), (28, 34646), (47, 34733), (75, 34892),

Gene: Culver_52 Start: 33043, Stop: 33345, Start Num: 17
Candidate Starts for Culver_52:
(Start: 17 @33043 has 17 MA's), (28, 33085), (47, 33172), (75, 33331),

Gene: Danyall_43 Start: 35297, Stop: 35596, Start Num: 12
Candidate Starts for Danyall_43:
(Start: 12 @35297 has 32 MA's), (13, 35303), (23, 35327), (27, 35357), (28, 35360), (33, 35378), (34, 35381), (36, 35387), (61, 35519),

Gene: Demsculpinboyz_39 Start: 28196, Stop: 28495, Start Num: 19
Candidate Starts for Demsculpinboyz_39:
(Start: 19 @28196 has 31 MA's), (Start: 21 @28202 has 2 MA's), (Start: 30 @28247 has 1 MA's), (33, 28256), (44, 28298), (65, 28439),

Gene: Dmitri_24 Start: 21645, Stop: 21950, Start Num: 16
Candidate Starts for Dmitri_24:
(Start: 16 @21645 has 14 MA's), (23, 21666), (27, 21696), (28, 21699), (33, 21717), (41, 21744), (44, 21759), (46, 21783),

Gene: Doggs_23 Start: 21280, Stop: 21594, Start Num: 15
Candidate Starts for Doggs_23:
(Start: 15 @21280 has 3 MA's), (27, 21340), (28, 21343), (29, 21349), (33, 21361), (41, 21388), (44, 21403), (46, 21427), (47, 21430),

Gene: Dusty_51 Start: 33043, Stop: 33345, Start Num: 17
Candidate Starts for Dusty_51:
(Start: 17 @33043 has 17 MA's), (28, 33085), (47, 33172), (75, 33331),

Gene: EMsquaredA_24 Start: 21040, Stop: 21339, Start Num: 12
Candidate Starts for EMsquaredA_24:
(Start: 12 @21040 has 32 MA's), (14, 21049), (23, 21070), (27, 21100), (33, 21121), (34, 21124), (36, 21130), (44, 21163),

Gene: EdnaMode_20 Start: 17846, Stop: 18145, Start Num: 12
Candidate Starts for EdnaMode_20:
(Start: 12 @17846 has 32 MA's), (23, 17876), (27, 17906), (28, 17909), (33, 17927), (34, 17930), (36, 17936), (44, 17969), (65, 18098),

Gene: Egi03_41 Start: 34987, Stop: 35301, Start Num: 19
Candidate Starts for Egi03_41:
(4, 34666), (Start: 19 @34987 has 31 MA's), (23, 34999), (35, 35056), (38, 35065), (44, 35092), (57, 35152), (67, 35233), (68, 35242),

Gene: EnalisNailo_24 Start: 21189, Stop: 21488, Start Num: 12
Candidate Starts for EnalisNailo_24:
(Start: 12 @21189 has 32 MA's), (14, 21198), (23, 21219), (27, 21249), (33, 21270), (34, 21273), (36, 21279), (44, 21312),

Gene: Engineer_54 Start: 33718, Stop: 34020, Start Num: 17
Candidate Starts for Engineer_54:

(Start: 17 @33718 has 17 MA's), (28, 33760), (47, 33847), (75, 34006),

Gene: Evamon_40 Start: 35316, Stop: 35615, Start Num: 12
Candidate Starts for Evamon_40:
(Start: 12 @35316 has 32 MA's), (13, 35322), (23, 35346), (27, 35376), (28, 35379), (33, 35397), (34, 35400), (36, 35406), (61, 35538),

Gene: Eyes_23 Start: 20535, Stop: 20837, Start Num: 16
Candidate Starts for Eyes_23:
(Start: 16 @20535 has 14 MA's), (23, 20556), (27, 20586), (28, 20589), (33, 20607), (52, 20682), (61, 20760),

Gene: FF47_29 Start: 24225, Stop: 24509, Start Num: 20
Candidate Starts for FF47_29:
(Start: 20 @24225 has 7 MA's), (31, 24279), (35, 24291), (44, 24327), (61, 24429),

Gene: Fairfaxidum_22 Start: 20690, Stop: 20986, Start Num: 20
Candidate Starts for Fairfaxidum_22:
(1, 20201), (3, 20363), (Start: 20 @20690 has 7 MA's), (28, 20732), (38, 20765), (41, 20777), (44, 20792), (66, 20942),

Gene: Faith5x5_20 Start: 17794, Stop: 18084, Start Num: 16
Candidate Starts for Faith5x5_20:
(3, 17479), (8, 17665), (Start: 16 @17794 has 14 MA's), (23, 17815), (27, 17845), (28, 17848), (33, 17866), (61, 18007), (63, 18022),

Gene: Fireball_42 Start: 35451, Stop: 35765, Start Num: 19
Candidate Starts for Fireball_42:
(4, 35130), (Start: 19 @35451 has 31 MA's), (23, 35463), (35, 35520), (38, 35529), (44, 35556), (57, 35616), (67, 35697), (68, 35706),

Gene: Floral_24 Start: 21040, Stop: 21339, Start Num: 12
Candidate Starts for Floral_24:
(Start: 12 @21040 has 32 MA's), (14, 21049), (23, 21070), (27, 21100), (33, 21121), (34, 21124), (36, 21130), (44, 21163),

Gene: Frickyeah_24 Start: 20331, Stop: 20630, Start Num: 18
Candidate Starts for Frickyeah_24:
(Start: 18 @20331 has 27 MA's), (24, 20355), (32, 20391), (37, 20406), (47, 20463),

Gene: Fugax_44 Start: 35498, Stop: 35812, Start Num: 19
Candidate Starts for Fugax_44:
(4, 35177), (Start: 19 @35498 has 31 MA's), (23, 35510), (35, 35567), (38, 35576), (44, 35603), (57, 35663), (67, 35744), (68, 35753),

Gene: GEazy_23 Start: 20550, Stop: 20852, Start Num: 16
Candidate Starts for GEazy_23:
(Start: 16 @20550 has 14 MA's), (23, 20571), (27, 20601), (28, 20604), (33, 20622), (52, 20697), (61, 20775), (69, 20826),

Gene: Geeche_51 Start: 33134, Stop: 33436, Start Num: 17
Candidate Starts for Geeche_51:
(Start: 17 @33134 has 17 MA's), (28, 33176), (47, 33263), (75, 33422),

Gene: Getalong_26 Start: 21368, Stop: 21667, Start Num: 18
Candidate Starts for Getalong_26:
(Start: 18 @21368 has 27 MA's), (24, 21392), (32, 21428), (37, 21443), (47, 21500),

Gene: Gezellig_40 Start: 35448, Stop: 35747, Start Num: 12
Candidate Starts for Gezellig_40:
(2, 35139), (Start: 12 @35448 has 32 MA's), (13, 35454), (23, 35478), (27, 35508), (28, 35511), (33, 35529), (34, 35532), (36, 35538), (61, 35670),

Gene: Halo3_41 Start: 35741, Stop: 36040, Start Num: 12
Candidate Starts for Halo3_41:
(Start: 12 @35741 has 32 MA's), (13, 35747), (23, 35771), (27, 35801), (28, 35804), (33, 35822), (34, 35825), (36, 35831), (61, 35963),

Gene: HannahD_23 Start: 20550, Stop: 20852, Start Num: 16
Candidate Starts for HannahD_23:
(Start: 16 @20550 has 14 MA's), (23, 20571), (27, 20601), (28, 20604), (33, 20622), (52, 20697), (61, 20775), (69, 20826),

Gene: Holliday_25 Start: 20673, Stop: 20972, Start Num: 18
Candidate Starts for Holliday_25:
(Start: 18 @20673 has 27 MA's), (24, 20697), (32, 20733), (37, 20748), (47, 20805),

Gene: Horus_25 Start: 20590, Stop: 20889, Start Num: 18
Candidate Starts for Horus_25:
(Start: 18 @20590 has 27 MA's), (24, 20614), (32, 20650), (37, 20665), (47, 20722),

Gene: Jabbawokkie_41 Start: 29644, Stop: 29943, Start Num: 19
Candidate Starts for Jabbawokkie_41:
(Start: 19 @29644 has 31 MA's), (Start: 21 @29650 has 2 MA's), (Start: 30 @29695 has 1 MA's), (33, 29704), (44, 29746), (65, 29887),

Gene: Jambalaya_41 Start: 35095, Stop: 35394, Start Num: 12
Candidate Starts for Jambalaya_41:
(Start: 12 @35095 has 32 MA's), (13, 35101), (23, 35125), (27, 35155), (28, 35158), (33, 35176), (34, 35179), (36, 35185), (61, 35317),

Gene: Jecs_24 Start: 20848, Stop: 21150, Start Num: 16
Candidate Starts for Jecs_24:
(Start: 16 @20848 has 14 MA's), (23, 20869), (27, 20899), (28, 20902), (33, 20920), (52, 20995), (61, 21073), (69, 21124), (74, 21136),

Gene: JohnPork_42 Start: 34816, Stop: 35115, Start Num: 12
Candidate Starts for JohnPork_42:
(Start: 12 @34816 has 32 MA's), (13, 34822), (23, 34846), (27, 34876), (28, 34879), (33, 34897), (34, 34900), (36, 34906), (61, 35038),

Gene: JuJu_23 Start: 20326, Stop: 20649, Start Num: 19
Candidate Starts for JuJu_23:
(Start: 19 @20326 has 31 MA's), (Start: 30 @20380 has 1 MA's), (44, 20431), (48, 20464), (56, 20497), (62, 20548), (70, 20596), (72, 20602),

Gene: Kamaru_25 Start: 20673, Stop: 20972, Start Num: 18
Candidate Starts for Kamaru_25:
(Start: 18 @20673 has 27 MA's), (24, 20697), (32, 20733), (37, 20748), (47, 20805),

Gene: KappaFarmDelta_24 Start: 20754, Stop: 21077, Start Num: 19
Candidate Starts for KappaFarmDelta_24:
(Start: 19 @20754 has 31 MA's), (Start: 30 @20808 has 1 MA's), (44, 20859), (48, 20892), (72, 21030),

Gene: Kenna_24 Start: 20566, Stop: 20865, Start Num: 18
Candidate Starts for Kenna_24:
(Start: 18 @20566 has 27 MA's), (24, 20590), (32, 20626), (37, 20641), (47, 20698),

Gene: KimmyK_42 Start: 36030, Stop: 36329, Start Num: 12
Candidate Starts for KimmyK_42:
(2, 35721), (Start: 12 @36030 has 32 MA's), (13, 36036), (23, 36060), (27, 36090), (28, 36093), (33, 36111), (34, 36114), (36, 36120), (61, 36252),

Gene: Kuwabara_24 Start: 19992, Stop: 20291, Start Num: 18
Candidate Starts for Kuwabara_24:
(Start: 18 @19992 has 27 MA's), (24, 20016), (32, 20052), (37, 20067), (47, 20124),

Gene: Lamberg_20 Start: 17846, Stop: 18145, Start Num: 12
Candidate Starts for Lamberg_20:
(Start: 12 @17846 has 32 MA's), (23, 17876), (27, 17906), (28, 17909), (33, 17927), (34, 17930), (36, 17936), (44, 17969), (65, 18098),

Gene: Leroy_25 Start: 20591, Stop: 20890, Start Num: 18
Candidate Starts for Leroy_25:
(Start: 18 @20591 has 27 MA's), (24, 20615), (32, 20651), (37, 20666), (47, 20723),

Gene: LilSpotty_34 Start: 26327, Stop: 26599, Start Num: 30
Candidate Starts for LilSpotty_34:
(6, 26078), (7, 26093), (Start: 30 @26327 has 1 MA's), (42, 26384), (51, 26432),

Gene: Lilas_24 Start: 21189, Stop: 21488, Start Num: 12
Candidate Starts for Lilas_24:
(Start: 12 @21189 has 32 MA's), (14, 21198), (23, 21219), (27, 21249), (33, 21270), (34, 21273), (36, 21279), (44, 21312),

Gene: LitninMcQueen_24 Start: 20322, Stop: 20621, Start Num: 18
Candidate Starts for LitninMcQueen_24:
(Start: 18 @20322 has 27 MA's), (24, 20346), (32, 20382), (37, 20397), (47, 20454),

Gene: Lozinak_53 Start: 33773, Stop: 34075, Start Num: 17
Candidate Starts for Lozinak_53:
(Start: 17 @33773 has 17 MA's), (28, 33815), (47, 33902), (75, 34061),

Gene: Lton_20 Start: 17875, Stop: 18174, Start Num: 12
Candidate Starts for Lton_20:
(Start: 12 @17875 has 32 MA's), (23, 17905), (27, 17935), (28, 17938), (33, 17956), (34, 17959), (36, 17965), (44, 17998), (65, 18127),

Gene: LunaStella_35 Start: 29537, Stop: 29839, Start Num: 19

Candidate Starts for LunaStella_35:
(Start: 19 @29537 has 31 MA's), (Start: 22 @29546 has 1 MA's), (32, 29597), (47, 29669), (50, 29693), (54, 29699), (55, 29702), (61, 29753), (65, 29783),

Gene: Lutum_25 Start: 20566, Stop: 20865, Start Num: 18
Candidate Starts for Lutum_25:
(Start: 18 @20566 has 27 MA's), (24, 20590), (32, 20626), (37, 20641), (47, 20698),

Gene: Maco6_27 Start: 23562, Stop: 23846, Start Num: 20
Candidate Starts for Maco6_27:
(Start: 20 @23562 has 7 MA's), (35, 23628), (44, 23664), (47, 23691), (61, 23766),

Gene: MagicMan_23 Start: 20856, Stop: 21158, Start Num: 16
Candidate Starts for MagicMan_23:
(Start: 16 @20856 has 14 MA's), (23, 20877), (27, 20907), (28, 20910), (33, 20928), (52, 21003), (61, 21081),

Gene: Malisha_26 Start: 22451, Stop: 22750, Start Num: 18
Candidate Starts for Malisha_26:
(Start: 18 @22451 has 27 MA's), (24, 22475), (32, 22511), (37, 22526), (47, 22583),

Gene: Marteena_24 Start: 21040, Stop: 21339, Start Num: 12
Candidate Starts for Marteena_24:
(Start: 12 @21040 has 32 MA's), (14, 21049), (23, 21070), (27, 21100), (33, 21121), (34, 21124), (36, 21130), (44, 21163),

Gene: Matteo_20 Start: 17783, Stop: 18082, Start Num: 12
Candidate Starts for Matteo_20:
(Start: 12 @17783 has 32 MA's), (23, 17813), (27, 17843), (28, 17846), (33, 17864), (34, 17867), (36, 17873), (44, 17906), (65, 18035),

Gene: Miskis_50 Start: 33078, Stop: 33380, Start Num: 17
Candidate Starts for Miskis_50:
(Start: 17 @33078 has 17 MA's), (28, 33120), (47, 33207), (75, 33366),

Gene: MooMoo_31 Start: 28084, Stop: 28386, Start Num: 19
Candidate Starts for MooMoo_31:
(Start: 19 @28084 has 31 MA's), (32, 28144), (47, 28216), (50, 28240), (54, 28246), (55, 28249), (59, 28288), (60, 28294), (61, 28300), (65, 28330),

Gene: Moosehead_20 Start: 17802, Stop: 18092, Start Num: 16
Candidate Starts for Moosehead_20:
(8, 17673), (Start: 16 @17802 has 14 MA's), (25, 17826), (27, 17841), (28, 17844), (34, 17865), (36, 17871), (39, 17880), (44, 17904), (58, 17985), (61, 18015), (74, 18078),

Gene: MortyNRick_24 Start: 20298, Stop: 20597, Start Num: 18
Candidate Starts for MortyNRick_24:
(Start: 18 @20298 has 27 MA's), (24, 20322), (32, 20358), (37, 20373), (47, 20430),

Gene: Muddy_29 Start: 24506, Stop: 24790, Start Num: 20
Candidate Starts for Muddy_29:
(Start: 20 @24506 has 7 MA's), (31, 24560), (35, 24572), (41, 24593), (44, 24608), (61, 24710),

Gene: Mutzi_40 Start: 36186, Stop: 36500, Start Num: 19
Candidate Starts for Mutzi_40:
(4, 35865), (Start: 19 @36186 has 31 MA's), (23, 36198), (35, 36255), (38, 36264), (44, 36291), (57, 36351), (67, 36432), (68, 36441),

Gene: NaLuna_23 Start: 20550, Stop: 20852, Start Num: 16
Candidate Starts for NaLuna_23:
(Start: 16 @20550 has 14 MA's), (23, 20571), (27, 20601), (28, 20604), (33, 20622), (52, 20697), (61, 20775), (69, 20826),

Gene: Nettuno_20 Start: 17849, Stop: 18148, Start Num: 12
Candidate Starts for Nettuno_20:
(Start: 12 @17849 has 32 MA's), (23, 17879), (27, 17909), (28, 17912), (33, 17930), (34, 17933), (36, 17939), (44, 17972), (65, 18101),

Gene: Norvs_53 Start: 33317, Stop: 33619, Start Num: 17
Candidate Starts for Norvs_53:
(Start: 17 @33317 has 17 MA's), (28, 33359), (47, 33446), (75, 33605),

Gene: Nubi_41 Start: 35331, Stop: 35645, Start Num: 19
Candidate Starts for Nubi_41:
(4, 35010), (Start: 19 @35331 has 31 MA's), (23, 35343), (35, 35400), (38, 35409), (44, 35436), (57, 35496), (67, 35577), (68, 35586),

Gene: Obliviate_22 Start: 20176, Stop: 20499, Start Num: 19
Candidate Starts for Obliviate_22:
(Start: 19 @20176 has 31 MA's), (Start: 30 @20230 has 1 MA's), (44, 20281), (48, 20314), (72, 20452),

Gene: OneUp_46 Start: 30753, Stop: 31055, Start Num: 17
Candidate Starts for OneUp_46:
(Start: 17 @30753 has 17 MA's), (Start: 30 @30804 has 1 MA's), (44, 30855), (66, 31005), (71, 31026), (75, 31041),

Gene: Opie_23 Start: 20880, Stop: 21182, Start Num: 16
Candidate Starts for Opie_23:
(Start: 16 @20880 has 14 MA's), (23, 20901), (27, 20931), (33, 20952), (52, 21027), (61, 21105),

Gene: Pepperoni_21 Start: 18655, Stop: 18957, Start Num: 12
Candidate Starts for Pepperoni_21:
(Start: 12 @18655 has 32 MA's), (23, 18688), (27, 18718), (28, 18721), (33, 18739), (34, 18742), (36, 18748), (44, 18781), (65, 18910),

Gene: Periwinkle_27 Start: 21035, Stop: 21334, Start Num: 18
Candidate Starts for Periwinkle_27:
(Start: 18 @21035 has 27 MA's), (24, 21059), (32, 21095), (37, 21110), (47, 21167),

Gene: Phabuloso_24 Start: 20322, Stop: 20621, Start Num: 18
Candidate Starts for Phabuloso_24:
(Start: 18 @20322 has 27 MA's), (24, 20346), (32, 20382), (37, 20397), (47, 20454),

Gene: PhinkBoden_52 Start: 33698, Stop: 34000, Start Num: 17
Candidate Starts for PhinkBoden_52:
(Start: 17 @33698 has 17 MA's), (28, 33740), (47, 33827), (75, 33986),

Gene: Phistory_26 Start: 21356, Stop: 21655, Start Num: 18
Candidate Starts for Phistory_26:
(Start: 18 @21356 has 27 MA's), (24, 21380), (32, 21416), (37, 21431), (47, 21488),

Gene: Phlop_40 Start: 35412, Stop: 35726, Start Num: 19
Candidate Starts for Phlop_40:
(4, 35091), (Start: 19 @35412 has 31 MA's), (23, 35424), (35, 35481), (38, 35490), (44, 35517), (57, 35577), (67, 35658), (68, 35667),

Gene: Pickett_20 Start: 17776, Stop: 18072, Start Num: 12
Candidate Starts for Pickett_20:
(Start: 12 @17776 has 32 MA's), (23, 17803), (27, 17833), (28, 17836), (33, 17854), (34, 17857), (36, 17863), (44, 17896), (65, 18025),

Gene: PinkCoffee_43 Start: 35515, Stop: 35829, Start Num: 19
Candidate Starts for PinkCoffee_43:
(4, 35194), (Start: 19 @35515 has 31 MA's), (23, 35527), (35, 35584), (38, 35593), (44, 35620), (57, 35680), (67, 35761), (68, 35770),

Gene: Pollux_24 Start: 21040, Stop: 21339, Start Num: 12
Candidate Starts for Pollux_24:
(Start: 12 @21040 has 32 MA's), (14, 21049), (23, 21070), (27, 21100), (33, 21121), (34, 21124), (36, 21130), (44, 21163),

Gene: Portcullis_42 Start: 34816, Stop: 35115, Start Num: 12
Candidate Starts for Portcullis_42:
(Start: 12 @34816 has 32 MA's), (13, 34822), (23, 34846), (27, 34876), (28, 34879), (33, 34897), (34, 34900), (36, 34906), (61, 35038),

Gene: PrincePatrick_22 Start: 20686, Stop: 20982, Start Num: 20
Candidate Starts for PrincePatrick_22:
(1, 20197), (Start: 20 @20686 has 7 MA's), (28, 20728), (38, 20761), (41, 20773), (44, 20788), (66, 20938),

Gene: PullumCavea_40 Start: 35412, Stop: 35726, Start Num: 19
Candidate Starts for PullumCavea_40:
(4, 35091), (Start: 19 @35412 has 31 MA's), (23, 35424), (35, 35481), (38, 35490), (44, 35517), (57, 35577), (67, 35658), (68, 35667),

Gene: REQ2_24 Start: 22071, Stop: 22325, Start Num: 27
Candidate Starts for REQ2_24:
(Start: 19 @22029 has 31 MA's), (Start: 20 @22032 has 7 MA's), (27, 22071), (Start: 30 @22083 has 1 MA's), (32, 22089), (47, 22161), (59, 22233), (72, 22305), (73, 22308),

Gene: RayTheFireFly_24 Start: 21613, Stop: 21927, Start Num: 15
Candidate Starts for RayTheFireFly_24:
(Start: 15 @21613 has 3 MA's), (27, 21673), (28, 21676), (29, 21682), (33, 21694), (41, 21721), (44, 21736), (46, 21760), (47, 21763),

Gene: Rem711_38 Start: 30182, Stop: 30463, Start Num: 19
Candidate Starts for Rem711_38:

(Start: 19 @30182 has 31 MA's), (28, 30224), (Start: 30 @30233 has 1 MA's), (33, 30242), (39, 30260), (44, 30284), (48, 30317),

Gene: RogerDodger_44 Start: 35645, Stop: 35944, Start Num: 12
Candidate Starts for RogerDodger_44:
(2, 35336), (Start: 12 @35645 has 32 MA's), (13, 35651), (23, 35675), (27, 35705), (28, 35708), (33, 35726), (34, 35729), (36, 35735), (61, 35867),

Gene: Salvador_40 Start: 35314, Stop: 35613, Start Num: 12
Candidate Starts for Salvador_40:
(Start: 12 @35314 has 32 MA's), (13, 35320), (23, 35344), (27, 35374), (28, 35377), (33, 35395), (34, 35398), (36, 35404), (61, 35536),

Gene: Savbucketdawg_41 Start: 35095, Stop: 35394, Start Num: 12
Candidate Starts for Savbucketdawg_41:
(Start: 12 @35095 has 32 MA's), (13, 35101), (23, 35125), (27, 35155), (28, 35158), (33, 35176), (34, 35179), (36, 35185), (61, 35317),

Gene: Schnabeltier_23 Start: 20857, Stop: 21159, Start Num: 16
Candidate Starts for Schnabeltier_23:
(Start: 16 @20857 has 14 MA's), (23, 20878), (27, 20908), (28, 20911), (33, 20929), (52, 21004), (61, 21082),

Gene: Sendy_42 Start: 35532, Stop: 35846, Start Num: 19
Candidate Starts for Sendy_42:
(4, 35211), (Start: 19 @35532 has 31 MA's), (23, 35544), (35, 35601), (38, 35610), (44, 35637), (57, 35697), (67, 35778), (68, 35787),

Gene: SharkTale_42 Start: 36213, Stop: 36527, Start Num: 19
Candidate Starts for SharkTale_42:
(Start: 19 @36213 has 31 MA's), (23, 36225), (35, 36282), (38, 36291), (44, 36318), (57, 36378), (67, 36459), (68, 36468),

Gene: ShawBrad_25 Start: 20578, Stop: 20877, Start Num: 18
Candidate Starts for ShawBrad_25:
(Start: 18 @20578 has 27 MA's), (24, 20602), (32, 20638), (37, 20653), (47, 20710),

Gene: Shinji_41 Start: 34768, Stop: 35082, Start Num: 19
Candidate Starts for Shinji_41:
(4, 34447), (Start: 19 @34768 has 31 MA's), (23, 34780), (35, 34837), (38, 34846), (44, 34873), (53, 34909), (57, 34933), (67, 35014), (68, 35023),

Gene: Sixsevenium_44 Start: 35751, Stop: 36077, Start Num: 19
Candidate Starts for Sixsevenium_44:
(Start: 19 @35751 has 31 MA's), (23, 35763), (35, 35820), (38, 35829), (40, 35838), (44, 35856), (67, 36009), (68, 36018),

Gene: SmokingBunny_41 Start: 35317, Stop: 35631, Start Num: 19
Candidate Starts for SmokingBunny_41:
(4, 34996), (Start: 19 @35317 has 31 MA's), (23, 35329), (35, 35386), (38, 35395), (44, 35422), (57, 35482), (67, 35563), (68, 35572),

Gene: Smoothie_54 Start: 33773, Stop: 34075, Start Num: 17

Candidate Starts for Smoothie_54:
(Start: 17 @33773 has 17 MA's), (28, 33815), (47, 33902), (75, 34061),

Gene: Soilmate_23 Start: 20353, Stop: 20676, Start Num: 19
Candidate Starts for Soilmate_23:
(Start: 19 @20353 has 31 MA's), (Start: 30 @20407 has 1 MA's), (44, 20458), (48, 20491), (72, 20629),

Gene: Spooky_25 Start: 20660, Stop: 20959, Start Num: 18
Candidate Starts for Spooky_25:
(Start: 18 @20660 has 27 MA's), (24, 20684), (32, 20720), (37, 20735), (47, 20792),

Gene: Squiddly_27 Start: 22072, Stop: 22371, Start Num: 18
Candidate Starts for Squiddly_27:
(Start: 18 @22072 has 27 MA's), (24, 22096), (32, 22132), (37, 22147), (47, 22204),

Gene: TChen_33 Start: 29547, Stop: 29840, Start Num: 22
Candidate Starts for TChen_33:
(Start: 19 @29538 has 31 MA's), (Start: 22 @29547 has 1 MA's), (32, 29598), (47, 29670), (50, 29694), (54, 29700), (55, 29703), (61, 29754), (65, 29784),

Gene: Tank_37 Start: 35024, Stop: 35344, Start Num: 11
Candidate Starts for Tank_37:
(10, 35021), (Start: 11 @35024 has 2 MA's), (26, 35087), (34, 35117), (51, 35195), (60, 35249), (65, 35285), (67, 35297),

Gene: TaronosaurasRx_23 Start: 20865, Stop: 21188, Start Num: 20
Candidate Starts for TaronosaurasRx_23:
(Start: 20 @20865 has 7 MA's), (27, 20904), (28, 20907), (34, 20928), (58, 21081), (61, 21111),

Gene: ThetaBob_33 Start: 28494, Stop: 28787, Start Num: 21
Candidate Starts for ThetaBob_33:
(Start: 19 @28488 has 31 MA's), (Start: 21 @28494 has 2 MA's), (Start: 30 @28539 has 1 MA's), (33, 28548), (44, 28590),

Gene: TillyBobJoe_41 Start: 35121, Stop: 35435, Start Num: 19
Candidate Starts for TillyBobJoe_41:
(4, 34800), (Start: 19 @35121 has 31 MA's), (23, 35133), (35, 35190), (38, 35199), (44, 35226), (57, 35286), (67, 35367), (68, 35376),

Gene: TinyDot_22 Start: 18288, Stop: 18587, Start Num: 19
Candidate Starts for TinyDot_22:
(5, 18057), (9, 18192), (Start: 19 @18288 has 31 MA's), (38, 18366), (40, 18375), (41, 18378), (43, 18390), (47, 18420), (63, 18519), (64, 18531), (66, 18543), (67, 18546), (68, 18555),

Gene: Togo_40 Start: 35317, Stop: 35631, Start Num: 19
Candidate Starts for Togo_40:
(4, 34996), (Start: 19 @35317 has 31 MA's), (23, 35329), (35, 35386), (38, 35395), (44, 35422), (57, 35482), (67, 35563), (68, 35572),

Gene: Toniann_52 Start: 33260, Stop: 33562, Start Num: 17
Candidate Starts for Toniann_52:
(Start: 17 @33260 has 17 MA's), (28, 33302), (47, 33389), (75, 33548),

Gene: Toron_34 Start: 29381, Stop: 29683, Start Num: 19
Candidate Starts for Toron_34:
(Start: 19 @29381 has 31 MA's), (Start: 22 @29390 has 1 MA's), (40, 29468), (47, 29513), (50, 29537), (54, 29543), (55, 29546), (59, 29585), (60, 29591), (61, 29597), (65, 29627),

Gene: Twister6_43 Start: 35208, Stop: 35507, Start Num: 12
Candidate Starts for Twister6_43:
(Start: 12 @35208 has 32 MA's), (13, 35214), (23, 35238), (27, 35268), (28, 35271), (33, 35289), (34, 35292), (36, 35298), (61, 35430),

Gene: Valary_43 Start: 36250, Stop: 36549, Start Num: 12
Candidate Starts for Valary_43:
(2, 35941), (Start: 12 @36250 has 32 MA's), (13, 36256), (23, 36280), (27, 36310), (28, 36313), (33, 36331), (34, 36334), (36, 36340), (61, 36472),

Gene: VanDeWege_44 Start: 35542, Stop: 35841, Start Num: 12
Candidate Starts for VanDeWege_44:
(2, 35233), (Start: 12 @35542 has 32 MA's), (13, 35548), (23, 35572), (27, 35602), (28, 35605), (33, 35623), (34, 35626), (36, 35632), (61, 35764),

Gene: Whack_23 Start: 20889, Stop: 21209, Start Num: 20
Candidate Starts for Whack_23:
(Start: 20 @20889 has 7 MA's), (29, 20937), (Start: 30 @20940 has 1 MA's), (37, 20961), (47, 21018), (49, 21036),

Gene: Whitney_26 Start: 21477, Stop: 21776, Start Num: 18
Candidate Starts for Whitney_26:
(Start: 18 @21477 has 27 MA's), (24, 21501), (32, 21537), (37, 21552), (47, 21609),

Gene: Wilde_37 Start: 34866, Stop: 35186, Start Num: 11
Candidate Starts for Wilde_37:
(10, 34863), (Start: 11 @34866 has 2 MA's), (26, 34929), (34, 34959), (51, 35037), (60, 35091), (65, 35127), (67, 35139),

Gene: William_23 Start: 20433, Stop: 20729, Start Num: 20
Candidate Starts for William_23:
(Start: 20 @20433 has 7 MA's), (28, 20475), (38, 20508), (41, 20520), (44, 20535), (66, 20685),

Gene: WilliamBoone_52 Start: 32612, Stop: 32914, Start Num: 17
Candidate Starts for WilliamBoone_52:
(Start: 17 @32612 has 17 MA's), (28, 32654), (43, 32711), (44, 32714), (47, 32741), (75, 32900),

Gene: Wizard_40 Start: 35448, Stop: 35747, Start Num: 12
Candidate Starts for Wizard_40:
(2, 35139), (Start: 12 @35448 has 32 MA's), (13, 35454), (23, 35478), (27, 35508), (28, 35511), (33, 35529), (34, 35532), (36, 35538), (61, 35670),

Gene: Yoshi_40 Start: 28571, Stop: 28864, Start Num: 21
Candidate Starts for Yoshi_40:
(Start: 19 @28565 has 31 MA's), (Start: 21 @28571 has 2 MA's), (33, 28625), (44, 28667), (55, 28727), (65, 28808),

Gene: YungMoney_44 Start: 37760, Stop: 38074, Start Num: 19

Candidate Starts for YungMoney_44:
(Start: 19 @37760 has 31 MA's), (23, 37772), (35, 37829), (38, 37838), (44, 37865), (57, 37925), (67, 38006), (68, 38015),

Gene: ZAYM_24 Start: 21334, Stop: 21657, Start Num: 20
Candidate Starts for ZAYM_24:
(Start: 20 @21334 has 7 MA's), (27, 21373), (28, 21376), (34, 21397), (61, 21580),

Gene: Zapner_40 Start: 29645, Stop: 29944, Start Num: 19
Candidate Starts for Zapner_40:
(Start: 19 @29645 has 31 MA's), (Start: 21 @29651 has 2 MA's), (Start: 30 @29696 has 1 MA's), (33, 29705), (44, 29747), (65, 29888),

Gene: ZiggyZoo_22 Start: 20176, Stop: 20499, Start Num: 19
Candidate Starts for ZiggyZoo_22:
(Start: 19 @20176 has 31 MA's), (Start: 30 @20230 has 1 MA's), (44, 20281), (48, 20314), (72, 20452),