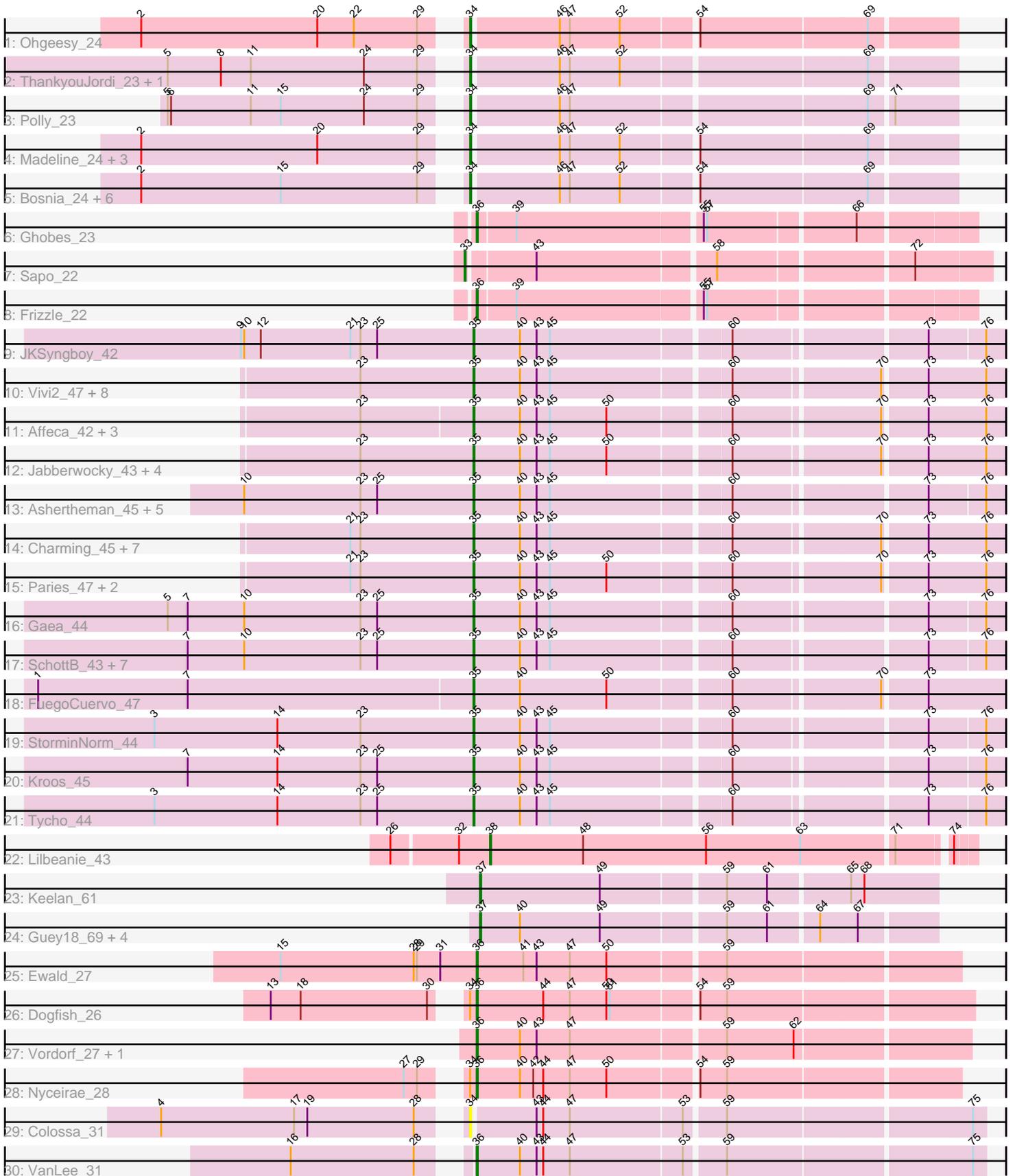


Pham 291082



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 291082 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291082 has 81 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Ohgeesy_24
- Track 2 : ThankyouJordi_23, WelcomeAyanna_23
- Track 3 : Polly_23
- Track 4 : Madeline_24, Zirinka_24, Madavieve_24, Bialota_24
- Track 5 : Bosnia_24, Nymphadora_24, TimTam_24, Hugley_24, Herod_24, Eviarto_24, BatStarr_24
- Track 6 : Ghobes_23
- Track 7 : Sapo_22
- Track 8 : Frizzle_22
- Track 9 : JKSyngboy_42
- Track 10 : Vivi2_47, Geodirt_43, Kamashten_42, McKinley_46, Fosterous_42, Thing3_42, Love_48, Kewpiedoll_44, Stultus_43
- Track 11 : Affeca_42, Lennon_44, Angelicage_42, Sitar_44
- Track 12 : Jabberwocky_43, Barsten_45, MoontowerMania_44, ChadMasterC_45, Shivanishola_44
- Track 13 : Ashertheman_45, Derg_40, Gustavo_44, Baddon_44, Saronaya_44, YorkOnyx_45
- Track 14 : Charming_45, Fitzgerald_43, BobBob_42, Tangent_45, Rofo_45, Sanjuju_43, Nordenberg_39, Brandonk123_46
- Track 15 : Paries_47, Galadriel_44, McCrothy_44
- Track 16 : Gaea_44
- Track 17 : SchottB_43, Flatwoods_45, Baumdotcom_43, Bizzy_45, Kwobi_46, Ribeye_45, Tangerine_44, LilHam_42
- Track 18 : FuegoCuervo_47
- Track 19 : StorminNorm_44
- Track 20 : Kroos_45
- Track 21 : Tycho_44
- Track 22 : Lilbeanie_43
- Track 23 : Keelan_61
- Track 24 : Guey18_69, Fryberger_63, Volt_66, Ronaldo_66, Ziko_66
- Track 25 : Ewald_27
- Track 26 : Dogfish_26
- Track 27 : Vordorf_27, Meyran_26
- Track 28 : Nyceirae_28
- Track 29 : Colossa_31
- Track 30 : VanLee_31

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

The start number called the most often in the published annotations is 35, it was called in 48 of the 76 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Affeca_42, Angelicage_42, Ashertheman_45, Baddon_44, Barsten_45, Baumdotcom_43, Bizzy_45, BobBob_42, Brandonk123_46, ChadMasterC_45, Charming_45, Derg_40, Fitzgerald_43, Flatwoods_45, Fosterous_42, FuegoCuervo_47, Gaea_44, Galadriel_44, Geodirt_43, Gustavo_44, JKSyngboy_42, Jabberwocky_43, Kamashten_42, Kewpiedoll_44, Kroos_45, Kwobi_46, Lennon_44, LilHam_42, Love_48, McCrothy_44, McKinley_46, MoontowerMania_44, Nordenberg_39, Paries_47, Ribeye_45, Rofo_45, Sanjuju_43, Saronaya_44, SchottB_43, Shivanishola_44, Sitar_44, StorminNorm_44, Stultus_43, Tangent_45, Tangerine_44, Thing3_42, Tycho_44, Vivi2_47, YorkOnyx_45,

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

-

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

- BatStarr_24, Bialota_24, Bosnia_24, Colossa_31, Dogfish_26, Eviarto_24, Ewald_27, Frizzle_22, Fryberger_63, Ghobes_23, Guey18_69, Herod_24, Hugley_24, Keelan_61, Lilbeanie_43, Madavieve_24, Madeline_24, Meyran_26, Nyceirae_28, Nymphadora_24, Ohgeesy_24, Polly_23, Ronaldo_66, Sapo_22, ThankyouJordi_23, TimTam_24, VanLee_31, Volt_66, Vordorf_27, WelcomeAyanna_23, Ziko_66, Zirinka_24,

Summary by start number:

Start 33:

- Found in 1 of 81 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 76
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sapo_22 (DA),

Start 34:

- Found in 18 of 81 (22.2%) of genes in pham
- Manual Annotations of this start: 13 of 76
- Called 88.9% of time when present
- Phage (with cluster) where this start called: BatStarr_24 (CZ1), Bialota_24 (CZ1), Bosnia_24 (CZ1), Colossa_31 (KA), Eviarto_24 (CZ1), Herod_24 (CZ1), Hugley_24 (CZ1), Madavieve_24 (CZ1), Madeline_24 (CZ1), Nymphadora_24 (CZ1), Ohgeesy_24 (CZ), Polly_23 (CZ1), ThankyouJordi_23 (CZ1), TimTam_24 (CZ1), WelcomeAyanna_23 (CZ1), Zirinka_24 (CZ1),

Start 35:

- Found in 49 of 81 (60.5%) of genes in pham
- Manual Annotations of this start: 48 of 76
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Affeca_42 (DE1), Angelicage_42 (DE1), Ashertheman_45 (DE1), Baddon_44 (DE1), Barsten_45 (DE1), Baumdotcom_43 (DE1), Bizzy_45 (DE1), BobBob_42 (DE1), Brandonk123_46 (DE1), ChadMasterC_45 (DE1), Charming_45 (DE1), Derg_40 (DE1), Fitzgerald_43 (DE1), Flatwoods_45 (DE1), Fosterous_42 (DE1), FuegoCuervo_47 (DE1), Gaea_44 (DE1), Galadriel_44 (DE1), Geodirt_43 (DE1), Gustavo_44 (DE1), JKSyngboy_42 (DE1), Jabberwocky_43 (DE1), Kamashten_42 (DE1), Kewpiedoll_44 (DE1), Kroos_45 (DE1), Kwobi_46 (DE1), Lennon_44 (DE1), LilHam_42 (DE1), Love_48 (DE1), McCrothy_44 (DE1), McKinley_46 (DE1), MoontowerMania_44 (DE1), Nordenberg_39 (DE1), Paries_47 (DE1), Ribeye_45 (DE1), Rofo_45 (DE1), Sanjuju_43 (DE1), Saronaya_44 (DE1), SchottB_43 (DE1), Shivanishola_44 (DE1), Sitar_44 (DE1), StorminNorm_44 (DE1), Stultus_43 (DE1), Tangent_45 (DE1), Tangerine_44 (DE1), Thing3_42 (DE1), Tycho_44 (DE1), Vivi2_47 (DE1), YorkOnyx_45 (DE1),

Start 36:

- Found in 8 of 81 (9.9%) of genes in pham
- Manual Annotations of this start: 7 of 76
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dogfish_26 (DT), Ewald_27 (DT), Frizzle_22 (DA), Ghobes_23 (DA), Meyran_26 (DT), Nyceirae_28 (DT), VanLee_31 (KA), Vordorf_27 (DT),

Start 37:

- Found in 6 of 81 (7.4%) of genes in pham
- Manual Annotations of this start: 6 of 76
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger_63 (DP), Guey18_69 (DP), Keelan_61 (DP), Ronaldo_66 (DP), Volt_66 (DP), Ziko_66 (DP),

Start 38:

- Found in 1 of 81 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 76
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie_43 (DE5),

Summary by clusters:

There are 8 clusters represented in this pham: KA, DE1, CZ1, DE5, DA, CZ, DT, DP,

Info for manual annotations of cluster CZ:

- Start number 34 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 34 was manually annotated 12 times for cluster CZ1.

Info for manual annotations of cluster DA:

- Start number 33 was manually annotated 1 time for cluster DA.
- Start number 36 was manually annotated 2 times for cluster DA.

Info for manual annotations of cluster DE1:

- Start number 35 was manually annotated 48 times for cluster DE1.

Info for manual annotations of cluster DE5:

- Start number 38 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DP:

- Start number 37 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster DT:

- Start number 36 was manually annotated 4 times for cluster DT.

Info for manual annotations of cluster KA:

- Start number 36 was manually annotated 1 time for cluster KA.

Gene Information:

Gene: Affeca_42 Start: 39008, Stop: 39457, Start Num: 35

Candidate Starts for Affeca_42:

(23, 38912), (Start: 35 @39008 has 48 MA's), (40, 39050), (43, 39065), (45, 39077), (50, 39128), (60, 39230), (70, 39353), (73, 39389), (76, 39440),

Gene: Angelicage_42 Start: 39426, Stop: 39875, Start Num: 35

Candidate Starts for Angelicage_42:

(23, 39330), (Start: 35 @39426 has 48 MA's), (40, 39468), (43, 39483), (45, 39495), (50, 39546), (60, 39648), (70, 39771), (73, 39807), (76, 39858),

Gene: Ashertheman_45 Start: 39429, Stop: 39875, Start Num: 35

Candidate Starts for Ashertheman_45:

(10, 39222), (23, 39327), (25, 39342), (Start: 35 @39429 has 48 MA's), (40, 39471), (43, 39486), (45, 39498), (60, 39651), (73, 39810), (76, 39858),

Gene: Baddon_44 Start: 39967, Stop: 40413, Start Num: 35

Candidate Starts for Baddon_44:

(10, 39760), (23, 39865), (25, 39880), (Start: 35 @39967 has 48 MA's), (40, 40009), (43, 40024), (45, 40036), (60, 40189), (73, 40348), (76, 40396),

Gene: Barsten_45 Start: 39581, Stop: 40030, Start Num: 35

Candidate Starts for Barsten_45:

(23, 39482), (Start: 35 @39581 has 48 MA's), (40, 39623), (43, 39638), (45, 39650), (50, 39701), (60, 39803), (70, 39926), (73, 39962), (76, 40013),

Gene: BatStarr_24 Start: 21899, Stop: 22312, Start Num: 34

Candidate Starts for BatStarr_24:

(2, 21629), (15, 21755), (29, 21878), (Start: 34 @21899 has 13 MA's), (46, 21974), (47, 21983), (52, 22028), (54, 22091), (69, 22238),

Gene: Baumdotcom_43 Start: 38818, Stop: 39264, Start Num: 35

Candidate Starts for Baumdotcom_43:

(7, 38560), (10, 38611), (23, 38716), (25, 38731), (Start: 35 @38818 has 48 MA's), (40, 38860), (43, 38875), (45, 38887), (60, 39040), (73, 39199), (76, 39247),

Gene: Bialota_24 Start: 21911, Stop: 22324, Start Num: 34

Candidate Starts for Bialota_24:

(2, 21641), (20, 21800), (29, 21890), (Start: 34 @21911 has 13 MA's), (46, 21986), (47, 21995), (52, 22040), (54, 22103), (69, 22250),

Gene: Bizzy_45 Start: 39124, Stop: 39570, Start Num: 35

Candidate Starts for Bizzy_45:

(7, 38866), (10, 38917), (23, 39022), (25, 39037), (Start: 35 @39124 has 48 MA's), (40, 39166), (43, 39181), (45, 39193), (60, 39346), (73, 39505), (76, 39553),

Gene: BobBob_42 Start: 38700, Stop: 39149, Start Num: 35

Candidate Starts for BobBob_42:

(21, 38592), (23, 38601), (Start: 35 @38700 has 48 MA's), (40, 38742), (43, 38757), (45, 38769), (60, 38922), (70, 39045), (73, 39081), (76, 39132),

Gene: Bosnia_24 Start: 21899, Stop: 22312, Start Num: 34

Candidate Starts for Bosnia_24:

(2, 21629), (15, 21755), (29, 21878), (Start: 34 @21899 has 13 MA's), (46, 21974), (47, 21983), (52, 22028), (54, 22091), (69, 22238),

Gene: Brandonk123_46 Start: 39835, Stop: 40284, Start Num: 35

Candidate Starts for Brandonk123_46:

(21, 39727), (23, 39736), (Start: 35 @39835 has 48 MA's), (40, 39877), (43, 39892), (45, 39904), (60, 40057), (70, 40180), (73, 40216), (76, 40267),

Gene: ChadMasterC_45 Start: 40980, Stop: 41429, Start Num: 35

Candidate Starts for ChadMasterC_45:

(23, 40881), (Start: 35 @40980 has 48 MA's), (40, 41022), (43, 41037), (45, 41049), (50, 41100), (60, 41202), (70, 41325), (73, 41361), (76, 41412),

Gene: Charming_45 Start: 39336, Stop: 39785, Start Num: 35

Candidate Starts for Charming_45:

(21, 39228), (23, 39237), (Start: 35 @39336 has 48 MA's), (40, 39378), (43, 39393), (45, 39405), (60, 39558), (70, 39681), (73, 39717), (76, 39768),

Gene: Colossa_31 Start: 26024, Stop: 26461, Start Num: 34

Candidate Starts for Colossa_31:

(4, 25772), (17, 25892), (19, 25904), (28, 26000), (Start: 34 @26024 has 13 MA's), (43, 26078), (44, 26084), (47, 26108), (53, 26207), (59, 26240), (75, 26450),

Gene: Derg_40 Start: 38716, Stop: 39162, Start Num: 35

Candidate Starts for Derg_40:

(10, 38509), (23, 38614), (25, 38629), (Start: 35 @38716 has 48 MA's), (40, 38758), (43, 38773), (45, 38785), (60, 38938), (73, 39097), (76, 39145),

Gene: Dogfish_26 Start: 22166, Stop: 22594, Start Num: 36

Candidate Starts for Dogfish_26:

(13, 22007), (18, 22034), (30, 22148), (Start: 34 @22160 has 13 MA's), (Start: 36 @22166 has 7 MA's), (44, 22226), (47, 22250), (50, 22283), (51, 22286), (54, 22358), (59, 22382),

Gene: Eviarto_24 Start: 21899, Stop: 22312, Start Num: 34

Candidate Starts for Eviarto_24:

(2, 21629), (15, 21755), (29, 21878), (Start: 34 @21899 has 13 MA's), (46, 21974), (47, 21983), (52, 22028), (54, 22091), (69, 22238),

Gene: Ewald_27 Start: 22552, Stop: 22968, Start Num: 36

Candidate Starts for Ewald_27:

(15, 22375), (28, 22495), (29, 22498), (31, 22519), (Start: 36 @22552 has 7 MA's), (41, 22594), (43, 22606), (47, 22636), (50, 22669), (59, 22768),

Gene: Fitzgerald_43 Start: 40238, Stop: 40687, Start Num: 35

Candidate Starts for Fitzgerald_43:

(21, 40130), (23, 40139), (Start: 35 @40238 has 48 MA's), (40, 40280), (43, 40295), (45, 40307), (60, 40460), (70, 40583), (73, 40619), (76, 40670),

Gene: Flatwoods_45 Start: 39068, Stop: 39514, Start Num: 35

Candidate Starts for Flatwoods_45:

(7, 38810), (10, 38861), (23, 38966), (25, 38981), (Start: 35 @39068 has 48 MA's), (40, 39110), (43, 39125), (45, 39137), (60, 39290), (73, 39449), (76, 39497),

Gene: Fosterous_42 Start: 38797, Stop: 39246, Start Num: 35

Candidate Starts for Fosterous_42:

(23, 38698), (Start: 35 @38797 has 48 MA's), (40, 38839), (43, 38854), (45, 38866), (60, 39019), (70, 39142), (73, 39178), (76, 39229),

Gene: Frizzle_22 Start: 19556, Stop: 19969, Start Num: 36

Candidate Starts for Frizzle_22:

(Start: 36 @19556 has 7 MA's), (39, 19589), (55, 19748), (57, 19751),

Gene: Fryberger_63 Start: 35468, Stop: 35857, Start Num: 37

Candidate Starts for Fryberger_63:

(Start: 37 @35468 has 6 MA's), (40, 35504), (49, 35576), (59, 35681), (61, 35717), (64, 35759), (67, 35792),

Gene: FuegoCuervo_47 Start: 38665, Stop: 39114, Start Num: 35

Candidate Starts for FuegoCuervo_47:

(1, 38278), (7, 38413), (Start: 35 @38665 has 48 MA's), (40, 38707), (50, 38785), (60, 38887), (70, 39010), (73, 39046),

Gene: Gaea_44 Start: 38712, Stop: 39158, Start Num: 35

Candidate Starts for Gaea_44:

(5, 38436), (7, 38454), (10, 38505), (23, 38610), (25, 38625), (Start: 35 @38712 has 48 MA's), (40, 38754), (43, 38769), (45, 38781), (60, 38934), (73, 39093), (76, 39141),

Gene: Galadriel_44 Start: 39604, Stop: 40053, Start Num: 35

Candidate Starts for Galadriel_44:

(21, 39496), (23, 39505), (Start: 35 @39604 has 48 MA's), (40, 39646), (43, 39661), (45, 39673), (50, 39724), (60, 39826), (70, 39949), (73, 39985), (76, 40036),

Gene: Geodirt_43 Start: 40216, Stop: 40665, Start Num: 35

Candidate Starts for Geodirt_43:

(23, 40117), (Start: 35 @40216 has 48 MA's), (40, 40258), (43, 40273), (45, 40285), (60, 40438), (70, 40561), (73, 40597), (76, 40648),

Gene: Ghobes_23 Start: 19556, Stop: 19969, Start Num: 36

Candidate Starts for Ghobes_23:

(Start: 36 @19556 has 7 MA's), (39, 19589), (55, 19748), (57, 19751), (66, 19874),

Gene: Guey18_69 Start: 36988, Stop: 37377, Start Num: 37

Candidate Starts for Guey18_69:

(Start: 37 @36988 has 6 MA's), (40, 37024), (49, 37096), (59, 37201), (61, 37237), (64, 37279), (67, 37312),

Gene: Gustavo_44 Start: 38884, Stop: 39330, Start Num: 35

Candidate Starts for Gustavo_44:

(10, 38677), (23, 38782), (25, 38797), (Start: 35 @38884 has 48 MA's), (40, 38926), (43, 38941), (45, 38953), (60, 39106), (73, 39265), (76, 39313),

Gene: Herod_24 Start: 21899, Stop: 22312, Start Num: 34

Candidate Starts for Herod_24:

(2, 21629), (15, 21755), (29, 21878), (Start: 34 @21899 has 13 MA's), (46, 21974), (47, 21983), (52, 22028), (54, 22091), (69, 22238),

Gene: Hugley_24 Start: 21899, Stop: 22312, Start Num: 34

Candidate Starts for Hugley_24:

(2, 21629), (15, 21755), (29, 21878), (Start: 34 @21899 has 13 MA's), (46, 21974), (47, 21983), (52, 22028), (54, 22091), (69, 22238),

Gene: JKSyngboy_42 Start: 39483, Stop: 39929, Start Num: 35

Candidate Starts for JKSyngboy_42:

(9, 39273), (10, 39276), (12, 39291), (21, 39372), (23, 39381), (25, 39396), (Start: 35 @39483 has 48 MA's), (40, 39525), (43, 39540), (45, 39552), (60, 39705), (73, 39864), (76, 39912),

Gene: Jabberwocky_43 Start: 40642, Stop: 41091, Start Num: 35

Candidate Starts for Jabberwocky_43:

(23, 40543), (Start: 35 @40642 has 48 MA's), (40, 40684), (43, 40699), (45, 40711), (50, 40762), (60, 40864), (70, 40987), (73, 41023), (76, 41074),

Gene: Kamashten_42 Start: 38577, Stop: 39026, Start Num: 35

Candidate Starts for Kamashten_42:

(23, 38478), (Start: 35 @38577 has 48 MA's), (40, 38619), (43, 38634), (45, 38646), (60, 38799), (70, 38922), (73, 38958), (76, 39009),

Gene: Keelan_61 Start: 35707, Stop: 36102, Start Num: 37

Candidate Starts for Keelan_61:

(Start: 37 @35707 has 6 MA's), (49, 35815), (59, 35920), (61, 35956), (65, 36025), (68, 36037),

Gene: Kewpiedoll_44 Start: 39518, Stop: 39967, Start Num: 35

Candidate Starts for Kewpiedoll_44:

(23, 39419), (Start: 35 @39518 has 48 MA's), (40, 39560), (43, 39575), (45, 39587), (60, 39740), (70, 39863), (73, 39899), (76, 39950),

Gene: Kroos_45 Start: 39624, Stop: 40070, Start Num: 35

Candidate Starts for Kroos_45:

(7, 39366), (14, 39447), (23, 39522), (25, 39537), (Start: 35 @39624 has 48 MA's), (40, 39666), (43, 39681), (45, 39693), (60, 39846), (73, 40005), (76, 40053),

Gene: Kwobi_46 Start: 39610, Stop: 40056, Start Num: 35

Candidate Starts for Kwobi_46:

(7, 39352), (10, 39403), (23, 39508), (25, 39523), (Start: 35 @39610 has 48 MA's), (40, 39652), (43, 39667), (45, 39679), (60, 39832), (73, 39991), (76, 40039),

Gene: Lennon_44 Start: 40321, Stop: 40770, Start Num: 35

Candidate Starts for Lennon_44:

(23, 40225), (Start: 35 @40321 has 48 MA's), (40, 40363), (43, 40378), (45, 40390), (50, 40441), (60, 40543), (70, 40666), (73, 40702), (76, 40753),

Gene: LilHam_42 Start: 38211, Stop: 38657, Start Num: 35

Candidate Starts for LilHam_42:

(7, 37953), (10, 38004), (23, 38109), (25, 38124), (Start: 35 @38211 has 48 MA's), (40, 38253), (43, 38268), (45, 38280), (60, 38433), (73, 38592), (76, 38640),

Gene: Lilbeanie_43 Start: 34683, Stop: 35099, Start Num: 38

Candidate Starts for Lilbeanie_43:

(26, 34599), (32, 34656), (Start: 38 @34683 has 1 MA's), (48, 34767), (56, 34878), (63, 34962), (71, 35040), (74, 35082),

Gene: Love_48 Start: 40769, Stop: 41218, Start Num: 35

Candidate Starts for Love_48:

(23, 40670), (Start: 35 @40769 has 48 MA's), (40, 40811), (43, 40826), (45, 40838), (60, 40991), (70, 41114), (73, 41150), (76, 41201),

Gene: Madavieve_24 Start: 22179, Stop: 22592, Start Num: 34

Candidate Starts for Madavieve_24:

(2, 21909), (20, 22068), (29, 22158), (Start: 34 @22179 has 13 MA's), (46, 22254), (47, 22263), (52, 22308), (54, 22371), (69, 22518),

Gene: Madeline_24 Start: 22197, Stop: 22610, Start Num: 34

Candidate Starts for Madeline_24:

(2, 21927), (20, 22086), (29, 22176), (Start: 34 @22197 has 13 MA's), (46, 22272), (47, 22281), (52, 22326), (54, 22389), (69, 22536),

Gene: McCrothy_44 Start: 39928, Stop: 40377, Start Num: 35

Candidate Starts for McCrothy_44:

(21, 39820), (23, 39829), (Start: 35 @39928 has 48 MA's), (40, 39970), (43, 39985), (45, 39997), (50, 40048), (60, 40150), (70, 40273), (73, 40309), (76, 40360),

Gene: McKinley_46 Start: 40142, Stop: 40591, Start Num: 35

Candidate Starts for McKinley_46:

(23, 40043), (Start: 35 @40142 has 48 MA's), (40, 40184), (43, 40199), (45, 40211), (60, 40364), (70, 40487), (73, 40523), (76, 40574),

Gene: Meyran_26 Start: 23021, Stop: 23446, Start Num: 36

Candidate Starts for Meyran_26:

(Start: 36 @23021 has 7 MA's), (40, 23060), (43, 23075), (47, 23105), (59, 23237), (62, 23297),

Gene: MoontowerMania_44 Start: 39977, Stop: 40426, Start Num: 35

Candidate Starts for MoontowerMania_44:

(23, 39878), (Start: 35 @39977 has 48 MA's), (40, 40019), (43, 40034), (45, 40046), (50, 40097), (60, 40199), (70, 40322), (73, 40358), (76, 40409),

Gene: Nordenberg_39 Start: 38962, Stop: 39411, Start Num: 35

Candidate Starts for Nordenberg_39:

(21, 38854), (23, 38863), (Start: 35 @38962 has 48 MA's), (40, 39004), (43, 39019), (45, 39031), (60, 39184), (70, 39307), (73, 39343), (76, 39394),

Gene: Nyceirae_28 Start: 22758, Stop: 23174, Start Num: 36

Candidate Starts for Nyceirae_28:

(27, 22719), (29, 22731), (Start: 34 @22752 has 13 MA's), (Start: 36 @22758 has 7 MA's), (40, 22797), (42, 22809), (44, 22818), (47, 22842), (50, 22875), (54, 22950), (59, 22974),

Gene: Nymphadora_24 Start: 21899, Stop: 22312, Start Num: 34

Candidate Starts for Nymphadora_24:

(2, 21629), (15, 21755), (29, 21878), (Start: 34 @21899 has 13 MA's), (46, 21974), (47, 21983), (52, 22028), (54, 22091), (69, 22238),

Gene: Ohgeesy_24 Start: 21522, Stop: 21935, Start Num: 34

Candidate Starts for Ohgeesy_24:

(2, 21252), (20, 21411), (22, 21444), (29, 21501), (Start: 34 @21522 has 13 MA's), (46, 21597), (47, 21606), (52, 21651), (54, 21714), (69, 21861),

Gene: Paries_47 Start: 40431, Stop: 40880, Start Num: 35

Candidate Starts for Paries_47:

(21, 40323), (23, 40332), (Start: 35 @40431 has 48 MA's), (40, 40473), (43, 40488), (45, 40500), (50, 40551), (60, 40653), (70, 40776), (73, 40812), (76, 40863),

Gene: Polly_23 Start: 21339, Stop: 21752, Start Num: 34

Candidate Starts for Polly_23:

(5, 21093), (6, 21096), (11, 21168), (15, 21195), (24, 21270), (29, 21318), (Start: 34 @21339 has 13 MA's), (46, 21414), (47, 21423), (69, 21678), (71, 21696),

Gene: Ribeye_45 Start: 40042, Stop: 40488, Start Num: 35

Candidate Starts for Ribeye_45:

(7, 39784), (10, 39835), (23, 39940), (25, 39955), (Start: 35 @40042 has 48 MA's), (40, 40084), (43, 40099), (45, 40111), (60, 40264), (73, 40423), (76, 40471),

Gene: Rofo_45 Start: 39757, Stop: 40206, Start Num: 35

Candidate Starts for Rofo_45:

(21, 39649), (23, 39658), (Start: 35 @39757 has 48 MA's), (40, 39799), (43, 39814), (45, 39826), (60, 39979), (70, 40102), (73, 40138), (76, 40189),

Gene: Ronaldo_66 Start: 36367, Stop: 36756, Start Num: 37

Candidate Starts for Ronaldo_66:

(Start: 37 @36367 has 6 MA's), (40, 36403), (49, 36475), (59, 36580), (61, 36616), (64, 36658), (67, 36691),

Gene: Sanjuju_43 Start: 40371, Stop: 40820, Start Num: 35

Candidate Starts for Sanjuju_43:

(21, 40263), (23, 40272), (Start: 35 @40371 has 48 MA's), (40, 40413), (43, 40428), (45, 40440), (60, 40593), (70, 40716), (73, 40752), (76, 40803),

Gene: Sapo_22 Start: 19503, Stop: 19937, Start Num: 33

Candidate Starts for Sapo_22:

(Start: 33 @19503 has 1 MA's), (43, 19560), (58, 19713), (72, 19872),

Gene: Saronaya_44 Start: 38884, Stop: 39330, Start Num: 35

Candidate Starts for Saronaya_44:

(10, 38677), (23, 38782), (25, 38797), (Start: 35 @38884 has 48 MA's), (40, 38926), (43, 38941), (45, 38953), (60, 39106), (73, 39265), (76, 39313),

Gene: SchottB_43 Start: 39884, Stop: 40330, Start Num: 35

Candidate Starts for SchottB_43:

(7, 39626), (10, 39677), (23, 39782), (25, 39797), (Start: 35 @39884 has 48 MA's), (40, 39926), (43, 39941), (45, 39953), (60, 40106), (73, 40265), (76, 40313),

Gene: Shivanishola_44 Start: 38638, Stop: 39087, Start Num: 35

Candidate Starts for Shivanishola_44:

(23, 38539), (Start: 35 @38638 has 48 MA's), (40, 38680), (43, 38695), (45, 38707), (50, 38758), (60, 38860), (70, 38983), (73, 39019), (76, 39070),

Gene: Sitar_44 Start: 40321, Stop: 40770, Start Num: 35

Candidate Starts for Sitar_44:

(23, 40225), (Start: 35 @40321 has 48 MA's), (40, 40363), (43, 40378), (45, 40390), (50, 40441), (60, 40543), (70, 40666), (73, 40702), (76, 40753),

Gene: StorminNorm_44 Start: 38975, Stop: 39421, Start Num: 35

Candidate Starts for StorminNorm_44:

(3, 38687), (14, 38798), (23, 38873), (Start: 35 @38975 has 48 MA's), (40, 39017), (43, 39032), (45, 39044), (60, 39197), (73, 39356), (76, 39404),

Gene: Stultus_43 Start: 39274, Stop: 39723, Start Num: 35

Candidate Starts for Stultus_43:

(23, 39175), (Start: 35 @39274 has 48 MA's), (40, 39316), (43, 39331), (45, 39343), (60, 39496), (70, 39619), (73, 39655), (76, 39706),

Gene: Tangent_45 Start: 39348, Stop: 39797, Start Num: 35

Candidate Starts for Tangent_45:

(21, 39240), (23, 39249), (Start: 35 @39348 has 48 MA's), (40, 39390), (43, 39405), (45, 39417), (60, 39570), (70, 39693), (73, 39729), (76, 39780),

Gene: Tangerine_44 Start: 38756, Stop: 39202, Start Num: 35

Candidate Starts for Tangerine_44:

(7, 38498), (10, 38549), (23, 38654), (25, 38669), (Start: 35 @38756 has 48 MA's), (40, 38798), (43, 38813), (45, 38825), (60, 38978), (73, 39137), (76, 39185),

Gene: ThankyouJordi_23 Start: 21874, Stop: 22287, Start Num: 34

Candidate Starts for ThankyouJordi_23:

(5, 21628), (8, 21676), (11, 21703), (24, 21805), (29, 21853), (Start: 34 @21874 has 13 MA's), (46, 21949), (47, 21958), (52, 22003), (69, 22213),

Gene: Thing3_42 Start: 38577, Stop: 39026, Start Num: 35

Candidate Starts for Thing3_42:

(23, 38478), (Start: 35 @38577 has 48 MA's), (40, 38619), (43, 38634), (45, 38646), (60, 38799), (70, 38922), (73, 38958), (76, 39009),

Gene: TimTam_24 Start: 21899, Stop: 22312, Start Num: 34

Candidate Starts for TimTam_24:

(2, 21629), (15, 21755), (29, 21878), (Start: 34 @21899 has 13 MA's), (46, 21974), (47, 21983), (52, 22028), (54, 22091), (69, 22238),

Gene: Tycho_44 Start: 38843, Stop: 39289, Start Num: 35

Candidate Starts for Tycho_44:

(3, 38555), (14, 38666), (23, 38741), (25, 38756), (Start: 35 @38843 has 48 MA's), (40, 38885), (43, 38900), (45, 38912), (60, 39065), (73, 39224), (76, 39272),

Gene: VanLee_31 Start: 26056, Stop: 26493, Start Num: 36

Candidate Starts for VanLee_31:

(16, 25918), (28, 26029), (Start: 36 @26056 has 7 MA's), (40, 26095), (43, 26110), (44, 26116), (47, 26140), (53, 26239), (59, 26272), (75, 26482),

Gene: Vivi2_47 Start: 40374, Stop: 40823, Start Num: 35

Candidate Starts for Vivi2_47:

(23, 40275), (Start: 35 @40374 has 48 MA's), (40, 40416), (43, 40431), (45, 40443), (60, 40596), (70, 40719), (73, 40755), (76, 40806),

Gene: Volt_66 Start: 36531, Stop: 36920, Start Num: 37

Candidate Starts for Volt_66:

(Start: 37 @36531 has 6 MA's), (40, 36567), (49, 36639), (59, 36744), (61, 36780), (64, 36822), (67, 36855),

Gene: Vordorf_27 Start: 22487, Stop: 22912, Start Num: 36

Candidate Starts for Vordorf_27:

(Start: 36 @22487 has 7 MA's), (40, 22526), (43, 22541), (47, 22571), (59, 22703), (62, 22763),

Gene: WelcomeAyanna_23 Start: 21874, Stop: 22287, Start Num: 34

Candidate Starts for WelcomeAyanna_23:

(5, 21628), (8, 21676), (11, 21703), (24, 21805), (29, 21853), (Start: 34 @21874 has 13 MA's), (46, 21949), (47, 21958), (52, 22003), (69, 22213),

Gene: YorkOnyx_45 Start: 39100, Stop: 39546, Start Num: 35

Candidate Starts for YorkOnyx_45:

(10, 38893), (23, 38998), (25, 39013), (Start: 35 @39100 has 48 MA's), (40, 39142), (43, 39157), (45, 39169), (60, 39322), (73, 39481), (76, 39529),

Gene: Ziko_66 Start: 36353, Stop: 36742, Start Num: 37

Candidate Starts for Ziko_66:

(Start: 37 @36353 has 6 MA's), (40, 36389), (49, 36461), (59, 36566), (61, 36602), (64, 36644), (67, 36677),

Gene: Zirinka_24 Start: 21911, Stop: 22324, Start Num: 34

Candidate Starts for Zirinka_24:

(2, 21641), (20, 21800), (29, 21890), (Start: 34 @21911 has 13 MA's), (46, 21986), (47, 21995), (52, 22040), (54, 22103), (69, 22250),