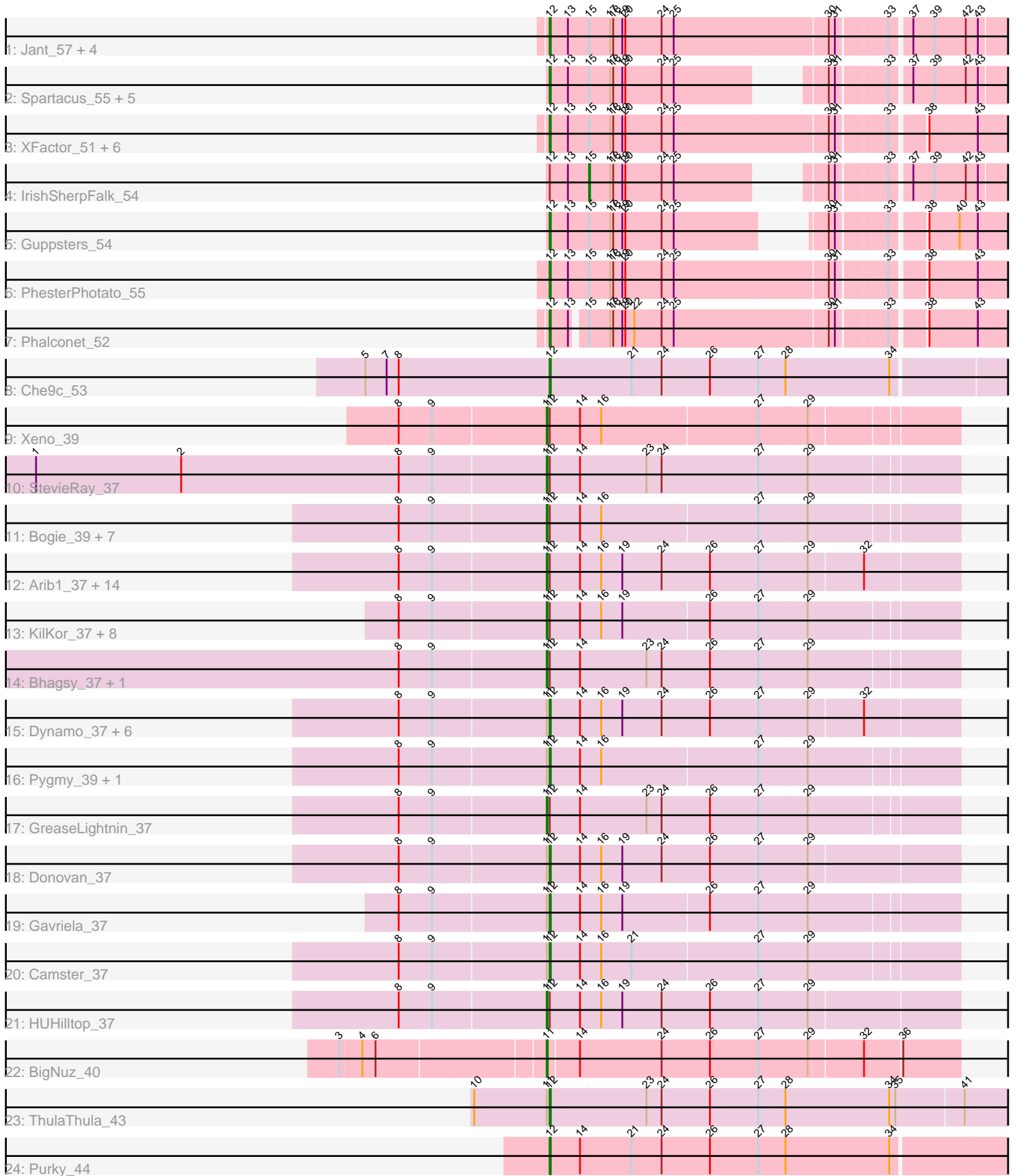


Pham 292759



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 292759 Report

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

Pham number 292759 has 76 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Jant_57, Batiatus_51, Medindi_51, IMpilo_50, Filuzino_51
- Track 2 : Spartacus_55, SilverChicken_63, Shauna1_52, WillSterrel_54, SuperGrey_57, Phanphagia_51
- Track 3 : XFactor_51, Doug_56, Sparkdehlily_61, Zerg_53, DaWorst_55, RockyHorror_54, TDanisky_61
- Track 4 : IrishSherpFalk_54
- Track 5 : Guppsters_54
- Track 6 : PhesterPhotato_55
- Track 7 : Phalconet_52
- Track 8 : Che9c_53
- Track 9 : Xeno_39
- Track 10 : StevieRay_37
- Track 11 : Bogie_39, Brusacoram_37, Bunnies_37, Ksquared_37, Malithi_37, Thespis_37, Atcoo_37, Shipwreck_39
- Track 12 : Arib1_37, Necropolis_37, Jebeks_38, Fishburne_37, Phineas_37, Etoile_37, BronnyJr_37, Mangethe_37, Majeke_37, Zilizebeth_37, Chubbello_37, Techage_37, Vidya_37, Bartholomew_36, GaloreK_37
- Track 13 : KilKor_37, Polkaroo_37, Phalm_37, Megiddo_37, Glaske_37, Willsammy_36, StressBall_37, CactusJack_37, Jung_36
- Track 14 : Bhagsy_37, PeanutPie_37
- Track 15 : Dynamo_37, Langerak_37, Venti_37, Sonah_37, Phegasus_37, Kari_37, FirstPlacePfu_37
- Track 16 : Pygmy_39, Juniormint_37
- Track 17 : GreaseLightnin_37
- Track 18 : Donovan_37
- Track 19 : Gavriela_37
- Track 20 : Camster_37
- Track 21 : HUHilltop_37
- Track 22 : BigNuz_40
- Track 23 : ThulaThula_43
- Track 24 : Purky_44

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

The start number called the most often in the published annotations is 11, it was called in 33 of the 66 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1_37, Atcoo_37, Bartholomew_36, Bhagsy_37, BigNuz_40, Bogie_39, BronnyJr_37, Brusacoram_37, Bunnies_37, CactusJack_37, Chubbello_37, Etoile_37, Fishburne_37, GaloreK_37, Glaske_37, GreaseLightnin_37, HUHilltop_37, Jebeks_38, Jung_36, KilKor_37, Ksquared_37, Majeke_37, Malithi_37, Mangethe_37, Megiddo_37, Necropolis_37, PeanutPie_37, Phalm_37, Phineas_37, Polkaroo_37, Shipwreck_39, StevieRay_37, StressBall_37, Techage_37, Thespi_37, Vidya_37, Willsammy_36, Xeno_39, Zilizebeth_37,

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

- Camster_37, Donovan_37, Dynamo_37, FirstPlacePfu_37, Gavriela_37, Juniormint_37, Kari_37, Langerak_37, Phegasus_37, Pygmy_39, Sonah_37, ThulaThula_43, Venti_37,

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

- Batiatus_51, Che9c_53, DaWorst_55, Doug_56, Filuzino_51, Guppsters_54, IMpilo_50, IrishSherpFalk_54, Jant_57, Medindi_51, Phalconet_52, Phanphagia_51, PhesterPhotato_55, Purky_44, RockyHorror_54, Shauna1_52, SilverChicken_63, Sparkdehlily_61, Spartacus_55, SuperGrey_57, TDanisky_61, WillSterrel_54, XFactor_51, Zerg_53,

Summary by start number:

Start 11:

- Found in 52 of 76 (68.4%) of genes in pham
- Manual Annotations of this start: 33 of 66
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Arib1_37 (P1), Atcoo_37 (P1), Bartholomew_36 (P1), Bhagsy_37 (P1), BigNuz_40 (P4), Bogie_39 (P1), BronnyJr_37 (P1), Brusacoram_37 (P1), Bunnies_37 (P1), CactusJack_37 (P1), Chubbello_37 (P1), Etoile_37 (P1), Fishburne_37 (P1), GaloreK_37 (P1), Glaske_37 (P1), GreaseLightnin_37 (P1), HUHilltop_37 (P1), Jebeks_38 (P1), Jung_36 (P1), KilKor_37 (P1), Ksquared_37 (P1), Majeke_37 (P1), Malithi_37 (P1), Mangethe_37 (P1), Megiddo_37 (P1), Necropolis_37 (P1), PeanutPie_37 (P1), Phalm_37 (P1), Phineas_37 (P1), Polkaroo_37 (P1), Shipwreck_39 (P1), StevieRay_37 (P1), StressBall_37 (P1), Techage_37 (P1), Thespi_37 (P1), Vidya_37 (P1), Willsammy_36 (P1), Xeno_39 (N), Zilizebeth_37 (P1),

Start 12:

- Found in 75 of 76 (98.7%) of genes in pham
- Manual Annotations of this start: 32 of 66
- Called 48.0% of time when present
- Phage (with cluster) where this start called: Batiatus_51 (F1), Camster_37 (P1), Che9c_53 (I2), DaWorst_55 (F1), Donovan_37 (P1), Doug_56 (F1), Dynamo_37 (P1), Filuzino_51 (F1), FirstPlacePfu_37 (P1), Gavriela_37 (P1), Guppsters_54 (F1), IMpilo_50 (F1), Jant_57 (F1), Juniormint_37 (P1), Kari_37 (P1), Langerak_37 (P1), Medindi_51 (F1), Phalconet_52 (F1), Phanphagia_51 (F1), Phegasus_37 (P1), PhesterPhotato_55 (F1), Purky_44 (P6), Pygmy_39 (P1), RockyHorror_54 (F1), Shauna1_52 (F1), SilverChicken_63 (F2), Sonah_37 (P1), Sparkdehlily_61 (F1), Spartacus_55 (F1), SuperGrey_57 (F1), TDanisky_61 (F1), ThulaThula_43 (P5),

Venti_37 (P1), WillSterrel_54 (F1), XFactor_51 (F1), Zerg_53 (F1),

Start 15:

- Found in 22 of 76 (28.9%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 4.5% of time when present
- Phage (with cluster) where this start called: IrishSherpFalk_54 (F1),

Summary by clusters:

There are 8 clusters represented in this pham: F1, F2, P1, P6, P4, P5, I2, N,

Info for manual annotations of cluster F1:

- Start number 12 was manually annotated 17 times for cluster F1.
- Start number 15 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster I2:

- Start number 12 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

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

Info for manual annotations of cluster P1:

- Start number 11 was manually annotated 31 times for cluster P1.
- Start number 12 was manually annotated 12 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 11 was manually annotated 1 time for cluster P4.

Info for manual annotations of cluster P5:

- Start number 12 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 12 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Arib1_37 Start: 29346, Stop: 29747, Start Num: 11

Candidate Starts for Arib1_37:

(8, 29202), (9, 29235), (Start: 11 @29346 has 33 MA's), (Start: 12 @29349 has 32 MA's), (14, 29379), (16, 29400), (19, 29421), (24, 29460), (26, 29508), (27, 29556), (29, 29604), (32, 29655),

Gene: Atcoo_37 Start: 29830, Stop: 30222, Start Num: 11

Candidate Starts for Atcoo_37:

(8, 29686), (9, 29719), (Start: 11 @29830 has 33 MA's), (Start: 12 @29833 has 32 MA's), (14, 29863), (16, 29884), (27, 30037), (29, 30085),

Gene: Bartholomew_36 Start: 29343, Stop: 29744, Start Num: 11

Candidate Starts for Bartholomew_36:

(8, 29199), (9, 29232), (Start: 11 @29343 has 33 MA's), (Start: 12 @29346 has 32 MA's), (14, 29376), (16, 29397), (19, 29418), (24, 29457), (26, 29505), (27, 29553), (29, 29601), (32, 29652),

Gene: Batiatus_51 Start: 37273, Stop: 37695, Start Num: 12

Candidate Starts for Batiatus_51:

(Start: 12 @37273 has 32 MA's), (13, 37291), (Start: 15 @37312 has 1 MA's), (17, 37333), (18, 37336), (19, 37345), (20, 37348), (24, 37384), (25, 37396), (30, 37507), (31, 37513), (33, 37558), (37, 37576), (39, 37597), (42, 37627), (43, 37639),

Gene: Bhagsy_37 Start: 29336, Stop: 29734, Start Num: 11

Candidate Starts for Bhagsy_37:

(8, 29192), (9, 29225), (Start: 11 @29336 has 33 MA's), (Start: 12 @29339 has 32 MA's), (14, 29369), (23, 29435), (24, 29450), (26, 29498), (27, 29546), (29, 29594),

Gene: BigNuz_40 Start: 31449, Stop: 31847, Start Num: 11

Candidate Starts for BigNuz_40:

(3, 31257), (4, 31278), (6, 31290), (Start: 11 @31449 has 33 MA's), (14, 31479), (24, 31560), (26, 31608), (27, 31656), (29, 31704), (32, 31755), (36, 31791),

Gene: Bogie_39 Start: 31126, Stop: 31521, Start Num: 11

Candidate Starts for Bogie_39:

(8, 30982), (9, 31015), (Start: 11 @31126 has 33 MA's), (Start: 12 @31129 has 32 MA's), (14, 31159), (16, 31180), (27, 31333), (29, 31381),

Gene: BronnyJr_37 Start: 29840, Stop: 30241, Start Num: 11

Candidate Starts for BronnyJr_37:

(8, 29696), (9, 29729), (Start: 11 @29840 has 33 MA's), (Start: 12 @29843 has 32 MA's), (14, 29873), (16, 29894), (19, 29915), (24, 29954), (26, 30002), (27, 30050), (29, 30098), (32, 30149),

Gene: Brusacoram_37 Start: 29336, Stop: 29728, Start Num: 11

Candidate Starts for Brusacoram_37:

(8, 29192), (9, 29225), (Start: 11 @29336 has 33 MA's), (Start: 12 @29339 has 32 MA's), (14, 29369), (16, 29390), (27, 29543), (29, 29591),

Gene: Bunnies_37 Start: 29357, Stop: 29752, Start Num: 11

Candidate Starts for Bunnies_37:

(8, 29213), (9, 29246), (Start: 11 @29357 has 33 MA's), (Start: 12 @29360 has 32 MA's), (14, 29390), (16, 29411), (27, 29564), (29, 29612),

Gene: CactusJack_37 Start: 29597, Stop: 29992, Start Num: 11

Candidate Starts for CactusJack_37:

(8, 29453), (9, 29486), (Start: 11 @29597 has 33 MA's), (Start: 12 @29600 has 32 MA's), (14, 29630), (16, 29651), (19, 29672), (26, 29756), (27, 29804), (29, 29852),

Gene: Camster_37 Start: 29376, Stop: 29768, Start Num: 12

Candidate Starts for Camster_37:

(8, 29229), (9, 29262), (Start: 11 @29373 has 33 MA's), (Start: 12 @29376 has 32 MA's), (14, 29406), (16, 29427), (21, 29457), (27, 29580), (29, 29628),

Gene: Che9c_53 Start: 40661, Stop: 41131, Start Num: 12

Candidate Starts for Che9c_53:

(5, 40478), (7, 40499), (8, 40511), (Start: 12 @40661 has 32 MA's), (21, 40742), (24, 40772), (26, 40820), (27, 40868), (28, 40895), (34, 40997),

Gene: Chubbello_37 Start: 29339, Stop: 29740, Start Num: 11

Candidate Starts for Chubbello_37:

(8, 29195), (9, 29228), (Start: 11 @29339 has 33 MA's), (Start: 12 @29342 has 32 MA's), (14, 29372), (16, 29393), (19, 29414), (24, 29453), (26, 29501), (27, 29549), (29, 29597), (32, 29648),

Gene: DaWorst_55 Start: 38273, Stop: 38734, Start Num: 12

Candidate Starts for DaWorst_55:

(Start: 12 @38273 has 32 MA's), (13, 38291), (Start: 15 @38312 has 1 MA's), (17, 38333), (18, 38336), (19, 38345), (20, 38348), (24, 38384), (25, 38396), (30, 38546), (31, 38552), (33, 38597), (38, 38627), (43, 38675),

Gene: Donovan_37 Start: 29365, Stop: 29763, Start Num: 12

Candidate Starts for Donovan_37:

(8, 29218), (9, 29251), (Start: 11 @29362 has 33 MA's), (Start: 12 @29365 has 32 MA's), (14, 29395), (16, 29416), (19, 29437), (24, 29476), (26, 29524), (27, 29572), (29, 29620),

Gene: Doug_56 Start: 38539, Stop: 39000, Start Num: 12

Candidate Starts for Doug_56:

(Start: 12 @38539 has 32 MA's), (13, 38557), (Start: 15 @38578 has 1 MA's), (17, 38599), (18, 38602), (19, 38611), (20, 38614), (24, 38650), (25, 38662), (30, 38812), (31, 38818), (33, 38863), (38, 38893), (43, 38941),

Gene: Dynamo_37 Start: 29754, Stop: 30152, Start Num: 12

Candidate Starts for Dynamo_37:

(8, 29607), (9, 29640), (Start: 11 @29751 has 33 MA's), (Start: 12 @29754 has 32 MA's), (14, 29784), (16, 29805), (19, 29826), (24, 29865), (26, 29913), (27, 29961), (29, 30009), (32, 30060),

Gene: Etoile_37 Start: 29343, Stop: 29744, Start Num: 11

Candidate Starts for Etoile_37:

(8, 29199), (9, 29232), (Start: 11 @29343 has 33 MA's), (Start: 12 @29346 has 32 MA's), (14, 29376), (16, 29397), (19, 29418), (24, 29457), (26, 29505), (27, 29553), (29, 29601), (32, 29652),

Gene: Filuzino_51 Start: 36320, Stop: 36742, Start Num: 12

Candidate Starts for Filuzino_51:

(Start: 12 @36320 has 32 MA's), (13, 36338), (Start: 15 @36359 has 1 MA's), (17, 36380), (18, 36383), (19, 36392), (20, 36395), (24, 36431), (25, 36443), (30, 36554), (31, 36560), (33, 36605), (37, 36623), (39, 36644), (42, 36674), (43, 36686),

Gene: FirstPlacePfu_37 Start: 29378, Stop: 29776, Start Num: 12

Candidate Starts for FirstPlacePfu_37:

(8, 29231), (9, 29264), (Start: 11 @29375 has 33 MA's), (Start: 12 @29378 has 32 MA's), (14, 29408), (16, 29429), (19, 29450), (24, 29489), (26, 29537), (27, 29585), (29, 29633), (32, 29684),

Gene: Fishburne_37 Start: 29343, Stop: 29744, Start Num: 11

Candidate Starts for Fishburne_37:

(8, 29199), (9, 29232), (Start: 11 @29343 has 33 MA's), (Start: 12 @29346 has 32 MA's), (14, 29376), (16, 29397), (19, 29418), (24, 29457), (26, 29505), (27, 29553), (29, 29601), (32, 29652),

Gene: GaloreK_37 Start: 29336, Stop: 29737, Start Num: 11

Candidate Starts for GaloreK_37:

(8, 29192), (9, 29225), (Start: 11 @29336 has 33 MA's), (Start: 12 @29339 has 32 MA's), (14, 29369), (16, 29390), (19, 29411), (24, 29450), (26, 29498), (27, 29546), (29, 29594), (32, 29645),

Gene: Gavriela_37 Start: 29600, Stop: 29992, Start Num: 12

Candidate Starts for Gavriela_37:

(8, 29453), (9, 29486), (Start: 11 @29597 has 33 MA's), (Start: 12 @29600 has 32 MA's), (14, 29630), (16, 29651), (19, 29672), (26, 29756), (27, 29804), (29, 29852),

Gene: Glaske_37 Start: 29597, Stop: 29992, Start Num: 11

Candidate Starts for Glaske_37:

(8, 29453), (9, 29486), (Start: 11 @29597 has 33 MA's), (Start: 12 @29600 has 32 MA's), (14, 29630), (16, 29651), (19, 29672), (26, 29756), (27, 29804), (29, 29852),

Gene: GreaseLightnin_37 Start: 29583, Stop: 29981, Start Num: 11

Candidate Starts for GreaseLightnin_37:

(8, 29439), (9, 29472), (Start: 11 @29583 has 33 MA's), (Start: 12 @29586 has 32 MA's), (14, 29616), (23, 29682), (24, 29697), (26, 29745), (27, 29793), (29, 29841),

Gene: Guppsters_54 Start: 36848, Stop: 37258, Start Num: 12

Candidate Starts for Guppsters_54:

(Start: 12 @36848 has 32 MA's), (13, 36866), (Start: 15 @36887 has 1 MA's), (17, 36908), (18, 36911), (19, 36920), (20, 36923), (24, 36959), (25, 36971), (30, 37070), (31, 37076), (33, 37121), (38, 37151), (40, 37181), (43, 37199),

Gene: HUHilltop_37 Start: 29373, Stop: 29774, Start Num: 11

Candidate Starts for HUHilltop_37:

(8, 29229), (9, 29262), (Start: 11 @29373 has 33 MA's), (Start: 12 @29376 has 32 MA's), (14, 29406), (16, 29427), (19, 29448), (24, 29487), (26, 29535), (27, 29583), (29, 29631),

Gene: IMpilo_50 Start: 35763, Stop: 36185, Start Num: 12

Candidate Starts for IMpilo_50:

(Start: 12 @35763 has 32 MA's), (13, 35781), (Start: 15 @35802 has 1 MA's), (17, 35823), (18, 35826), (19, 35835), (20, 35838), (24, 35874), (25, 35886), (30, 35997), (31, 36003), (33, 36048), (37, 36066), (39, 36087), (42, 36117), (43, 36129),

Gene: IrishSherpFalk_54 Start: 38745, Stop: 39116, Start Num: 15

Candidate Starts for IrishSherpFalk_54:

(Start: 12 @38706 has 32 MA's), (13, 38724), (Start: 15 @38745 has 1 MA's), (17, 38766), (18, 38769), (19, 38778), (20, 38781), (24, 38817), (25, 38829), (30, 38928), (31, 38934), (33, 38979), (37, 38997), (39, 39018), (42, 39048), (43, 39060),

Gene: Jant_57 Start: 39083, Stop: 39544, Start Num: 12

Candidate Starts for Jant_57:

(Start: 12 @39083 has 32 MA's), (13, 39101), (Start: 15 @39122 has 1 MA's), (17, 39143), (18, 39146), (19, 39155), (20, 39158), (24, 39194), (25, 39206), (30, 39356), (31, 39362), (33, 39407), (37, 39425), (39, 39446), (42, 39476), (43, 39488),

Gene: Jebeks_38 Start: 29328, Stop: 29729, Start Num: 11

Candidate Starts for Jebeks_38:

(8, 29184), (9, 29217), (Start: 11 @29328 has 33 MA's), (Start: 12 @29331 has 32 MA's), (14, 29361), (16, 29382), (19, 29403), (24, 29442), (26, 29490), (27, 29538), (29, 29586), (32, 29637),

Gene: Jung_36 Start: 29304, Stop: 29699, Start Num: 11

Candidate Starts for Jung_36:

(8, 29160), (9, 29193), (Start: 11 @29304 has 33 MA's), (Start: 12 @29307 has 32 MA's), (14, 29337), (16, 29358), (19, 29379), (26, 29463), (27, 29511), (29, 29559),

Gene: Juniormint_37 Start: 29382, Stop: 29774, Start Num: 12

Candidate Starts for Juniormint_37:

(8, 29235), (9, 29268), (Start: 11 @29379 has 33 MA's), (Start: 12 @29382 has 32 MA's), (14, 29412), (16, 29433), (27, 29586), (29, 29634),

Gene: Kari_37 Start: 29343, Stop: 29741, Start Num: 12

Candidate Starts for Kari_37:

(8, 29196), (9, 29229), (Start: 11 @29340 has 33 MA's), (Start: 12 @29343 has 32 MA's), (14, 29373), (16, 29394), (19, 29415), (24, 29454), (26, 29502), (27, 29550), (29, 29598), (32, 29649),

Gene: KilKor_37 Start: 29597, Stop: 29992, Start Num: 11

Candidate Starts for KilKor_37:

(8, 29453), (9, 29486), (Start: 11 @29597 has 33 MA's), (Start: 12 @29600 has 32 MA's), (14, 29630), (16, 29651), (19, 29672), (26, 29756), (27, 29804), (29, 29852),

Gene: Ksquared_37 Start: 29357, Stop: 29752, Start Num: 11

Candidate Starts for Ksquared_37:

(8, 29213), (9, 29246), (Start: 11 @29357 has 33 MA's), (Start: 12 @29360 has 32 MA's), (14, 29390), (16, 29411), (27, 29564), (29, 29612),

Gene: Langerak_37 Start: 29359, Stop: 29757, Start Num: 12

Candidate Starts for Langerak_37:

(8, 29212), (9, 29245), (Start: 11 @29356 has 33 MA's), (Start: 12 @29359 has 32 MA's), (14, 29389), (16, 29410), (19, 29431), (24, 29470), (26, 29518), (27, 29566), (29, 29614), (32, 29665),

Gene: Majeke_37 Start: 29381, Stop: 29782, Start Num: 11

Candidate Starts for Majeke_37:

(8, 29237), (9, 29270), (Start: 11 @29381 has 33 MA's), (Start: 12 @29384 has 32 MA's), (14, 29414), (16, 29435), (19, 29456), (24, 29495), (26, 29543), (27, 29591), (29, 29639), (32, 29690),

Gene: Malithi_37 Start: 29266, Stop: 29661, Start Num: 11

Candidate Starts for Malithi_37:

(8, 29122), (9, 29155), (Start: 11 @29266 has 33 MA's), (Start: 12 @29269 has 32 MA's), (14, 29299), (16, 29320), (27, 29473), (29, 29521),

Gene: Mangethe_37 Start: 29381, Stop: 29782, Start Num: 11

Candidate Starts for Mangethe_37:

(8, 29237), (9, 29270), (Start: 11 @29381 has 33 MA's), (Start: 12 @29384 has 32 MA's), (14, 29414), (16, 29435), (19, 29456), (24, 29495), (26, 29543), (27, 29591), (29, 29639), (32, 29690),

Gene: Medindi_51 Start: 35601, Stop: 36023, Start Num: 12

Candidate Starts for Medindi_51:

(Start: 12 @35601 has 32 MA's), (13, 35619), (Start: 15 @35640 has 1 MA's), (17, 35661), (18, 35664), (19, 35673), (20, 35676), (24, 35712), (25, 35724), (30, 35835), (31, 35841), (33, 35886), (37, 35904), (39, 35925), (42, 35955), (43, 35967),

Gene: Megiddo_37 Start: 29597, Stop: 29992, Start Num: 11

Candidate Starts for Megiddo_37:

(8, 29453), (9, 29486), (Start: 11 @29597 has 33 MA's), (Start: 12 @29600 has 32 MA's), (14, 29630), (16, 29651), (19, 29672), (26, 29756), (27, 29804), (29, 29852),

Gene: Necropolis_37 Start: 29340, Stop: 29741, Start Num: 11

Candidate Starts for Necropolis_37:

(8, 29196), (9, 29229), (Start: 11 @29340 has 33 MA's), (Start: 12 @29343 has 32 MA's), (14, 29373), (16, 29394), (19, 29415), (24, 29454), (26, 29502), (27, 29550), (29, 29598), (32, 29649),

Gene: PeanutPie_37 Start: 29336, Stop: 29734, Start Num: 11

Candidate Starts for PeanutPie_37:

(8, 29192), (9, 29225), (Start: 11 @29336 has 33 MA's), (Start: 12 @29339 has 32 MA's), (14, 29369), (23, 29435), (24, 29450), (26, 29498), (27, 29546), (29, 29594),

Gene: Phalconet_52 Start: 36835, Stop: 37287, Start Num: 12

Candidate Starts for Phalconet_52:

(Start: 12 @36835 has 32 MA's), (13, 36853), (Start: 15 @36865 has 1 MA's), (17, 36886), (18, 36889), (19, 36898), (20, 36901), (22, 36910), (24, 36937), (25, 36949), (30, 37099), (31, 37105), (33, 37150), (38, 37180), (43, 37228),

Gene: Phalm_37 Start: 29597, Stop: 29992, Start Num: 11

Candidate Starts for Phalm_37:

(8, 29453), (9, 29486), (Start: 11 @29597 has 33 MA's), (Start: 12 @29600 has 32 MA's), (14, 29630), (16, 29651), (19, 29672), (26, 29756), (27, 29804), (29, 29852),

Gene: Phanphagia_51 Start: 37739, Stop: 38149, Start Num: 12

Candidate Starts for Phanphagia_51:

(Start: 12 @37739 has 32 MA's), (13, 37757), (Start: 15 @37778 has 1 MA's), (17, 37799), (18, 37802), (19, 37811), (20, 37814), (24, 37850), (25, 37862), (30, 37961), (31, 37967), (33, 38012), (37, 38030), (39, 38051), (42, 38081), (43, 38093),

Gene: Phegasus_37 Start: 29351, Stop: 29749, Start Num: 12

Candidate Starts for Phegasus_37:

(8, 29204), (9, 29237), (Start: 11 @29348 has 33 MA's), (Start: 12 @29351 has 32 MA's), (14, 29381), (16, 29402), (19, 29423), (24, 29462), (26, 29510), (27, 29558), (29, 29606), (32, 29657),

Gene: PhesterPhotato_55 Start: 37823, Stop: 38284, Start Num: 12

Candidate Starts for PhesterPhotato_55:

(Start: 12 @37823 has 32 MA's), (13, 37841), (Start: 15 @37862 has 1 MA's), (17, 37883), (18, 37886), (19, 37895), (20, 37898), (24, 37934), (25, 37946), (30, 38096), (31, 38102), (33, 38147), (38, 38177), (43, 38225),

Gene: Phineas_37 Start: 29711, Stop: 30112, Start Num: 11

Candidate Starts for Phineas_37:

(8, 29567), (9, 29600), (Start: 11 @29711 has 33 MA's), (Start: 12 @29714 has 32 MA's), (14, 29744), (16, 29765), (19, 29786), (24, 29825), (26, 29873), (27, 29921), (29, 29969), (32, 30020),

Gene: Polkaroo_37 Start: 29354, Stop: 29749, Start Num: 11

Candidate Starts for Polkaroo_37:

(8, 29210), (9, 29243), (Start: 11 @29354 has 33 MA's), (Start: 12 @29357 has 32 MA's), (14, 29387), (16, 29408), (19, 29429), (26, 29513), (27, 29561), (29, 29609),

Gene: Purky_44 Start: 32059, Stop: 32535, Start Num: 12

Candidate Starts for Purky_44:

(Start: 12 @32059 has 32 MA's), (14, 32089), (21, 32140), (24, 32170), (26, 32218), (27, 32266), (28, 32293), (34, 32395),

Gene: Pygmy_39 Start: 31185, Stop: 31577, Start Num: 12

Candidate Starts for Pygmy_39:

(8, 31038), (9, 31071), (Start: 11 @31182 has 33 MA's), (Start: 12 @31185 has 32 MA's), (14, 31215), (16, 31236), (27, 31389), (29, 31437),

Gene: RockyHorror_54 Start: 37296, Stop: 37757, Start Num: 12

Candidate Starts for RockyHorror_54:

(Start: 12 @37296 has 32 MA's), (13, 37314), (Start: 15 @37335 has 1 MA's), (17, 37356), (18, 37359), (19, 37368), (20, 37371), (24, 37407), (25, 37419), (30, 37569), (31, 37575), (33, 37620), (38, 37650), (43, 37698),

Gene: Shauna1_52 Start: 37720, Stop: 38130, Start Num: 12

Candidate Starts for Shauna1_52:

(Start: 12 @37720 has 32 MA's), (13, 37738), (Start: 15 @37759 has 1 MA's), (17, 37780), (18, 37783), (19, 37792), (20, 37795), (24, 37831), (25, 37843), (30, 37942), (31, 37948), (33, 37993), (37, 38011), (39, 38032), (42, 38062), (43, 38074),

Gene: Shipwreck_39 Start: 31157, Stop: 31552, Start Num: 11

Candidate Starts for Shipwreck_39:

(8, 31013), (9, 31046), (Start: 11 @31157 has 33 MA's), (Start: 12 @31160 has 32 MA's), (14, 31190), (16, 31211), (27, 31364), (29, 31412),

Gene: SilverChicken_63 Start: 37324, Stop: 37746, Start Num: 12

Candidate Starts for SilverChicken_63:

(Start: 12 @37324 has 32 MA's), (13, 37342), (Start: 15 @37363 has 1 MA's), (17, 37384), (18, 37387), (19, 37396), (20, 37399), (24, 37435), (25, 37447), (30, 37558), (31, 37564), (33, 37609), (37, 37627), (39, 37648), (42, 37678), (43, 37690),

Gene: Sonah_37 Start: 29332, Stop: 29730, Start Num: 12

Candidate Starts for Sonah_37:

(8, 29185), (9, 29218), (Start: 11 @29329 has 33 MA's), (Start: 12 @29332 has 32 MA's), (14, 29362), (16, 29383), (19, 29404), (24, 29443), (26, 29491), (27, 29539), (29, 29587), (32, 29638),

Gene: Sparkdehlily_61 Start: 39036, Stop: 39497, Start Num: 12

Candidate Starts for Sparkdehlily_61:

(Start: 12 @39036 has 32 MA's), (13, 39054), (Start: 15 @39075 has 1 MA's), (17, 39096), (18, 39099), (19, 39108), (20, 39111), (24, 39147), (25, 39159), (30, 39309), (31, 39315), (33, 39360), (38, 39390), (43, 39438),

Gene: Spartacus_55 Start: 37623, Stop: 38033, Start Num: 12

Candidate Starts for Spartacus_55:

(Start: 12 @37623 has 32 MA's), (13, 37641), (Start: 15 @37662 has 1 MA's), (17, 37683), (18, 37686), (19, 37695), (20, 37698), (24, 37734), (25, 37746), (30, 37845), (31, 37851), (33, 37896), (37, 37914), (39, 37935), (42, 37965), (43, 37977),

Gene: StevieRay_37 Start: 29296, Stop: 29694, Start Num: 11

Candidate Starts for StevieRay_37:

(1, 28792), (2, 28936), (8, 29152), (9, 29185), (Start: 11 @29296 has 33 MA's), (Start: 12 @29299 has 32 MA's), (14, 29329), (23, 29395), (24, 29410), (27, 29506), (29, 29554),

Gene: StressBall_37 Start: 29597, Stop: 29992, Start Num: 11

Candidate Starts for StressBall_37:

(8, 29453), (9, 29486), (Start: 11 @29597 has 33 MA's), (Start: 12 @29600 has 32 MA's), (14, 29630), (16, 29651), (19, 29672), (26, 29756), (27, 29804), (29, 29852),

Gene: SuperGrey_57 Start: 39146, Stop: 39556, Start Num: 12

Candidate Starts for SuperGrey_57:

(Start: 12 @39146 has 32 MA's), (13, 39164), (Start: 15 @39185 has 1 MA's), (17, 39206), (18, 39209), (19, 39218), (20, 39221), (24, 39257), (25, 39269), (30, 39368), (31, 39374), (33, 39419), (37, 39437), (39, 39458), (42, 39488), (43, 39500),

Gene: TDanisky_61 Start: 39036, Stop: 39497, Start Num: 12

Candidate Starts for TDanisky_61:

(Start: 12 @39036 has 32 MA's), (13, 39054), (Start: 15 @39075 has 1 MA's), (17, 39096), (18, 39099), (19, 39108), (20, 39111), (24, 39147), (25, 39159), (30, 39309), (31, 39315), (33, 39360), (38, 39390), (43, 39438),

Gene: Techage_37 Start: 29366, Stop: 29767, Start Num: 11

Candidate Starts for Techage_37:

(8, 29222), (9, 29255), (Start: 11 @29366 has 33 MA's), (Start: 12 @29369 has 32 MA's), (14, 29399), (16, 29420), (19, 29441), (24, 29480), (26, 29528), (27, 29576), (29, 29624), (32, 29675),

Gene: Thespis_37 Start: 29336, Stop: 29728, Start Num: 11

Candidate Starts for Thespis_37:

(8, 29192), (9, 29225), (Start: 11 @29336 has 33 MA's), (Start: 12 @29339 has 32 MA's), (14, 29369), (16, 29390), (27, 29543), (29, 29591),

Gene: ThulaThula_43 Start: 33482, Stop: 33961, Start Num: 12

Candidate Starts for ThulaThula_43:

(10, 33407), (Start: 11 @33479 has 33 MA's), (Start: 12 @33482 has 32 MA's), (23, 33578), (24, 33593), (26, 33641), (27, 33689), (28, 33716), (34, 33818), (35, 33824), (41, 33890),

Gene: Venti_37 Start: 29346, Stop: 29744, Start Num: 12

Candidate Starts for Venti_37:

(8, 29199), (9, 29232), (Start: 11 @29343 has 33 MA's), (Start: 12 @29346 has 32 MA's), (14, 29376), (16, 29397), (19, 29418), (24, 29457), (26, 29505), (27, 29553), (29, 29601), (32, 29652),

Gene: Vidya_37 Start: 29376, Stop: 29777, Start Num: 11

Candidate Starts for Vidya_37:

(8, 29232), (9, 29265), (Start: 11 @29376 has 33 MA's), (Start: 12 @29379 has 32 MA's), (14, 29409), (16, 29430), (19, 29451), (24, 29490), (26, 29538), (27, 29586), (29, 29634), (32, 29685),

Gene: WillSterrel_54 Start: 38739, Stop: 39149, Start Num: 12

Candidate Starts for WillSterrel_54:

(Start: 12 @38739 has 32 MA's), (13, 38757), (Start: 15 @38778 has 1 MA's), (17, 38799), (18, 38802), (19, 38811), (20, 38814), (24, 38850), (25, 38862), (30, 38961), (31, 38967), (33, 39012), (37, 39030), (39, 39051), (42, 39081), (43, 39093),

Gene: Willsammy_36 Start: 29080, Stop: 29475, Start Num: 11

Candidate Starts for Willsammy_36:

(8, 28936), (9, 28969), (Start: 11 @29080 has 33 MA's), (Start: 12 @29083 has 32 MA's), (14, 29113), (16, 29134), (19, 29155), (26, 29239), (27, 29287), (29, 29335),

Gene: XFactor_51 Start: 36239, Stop: 36700, Start Num: 12

Candidate Starts for XFactor_51:

(Start: 12 @36239 has 32 MA's), (13, 36257), (Start: 15 @36278 has 1 MA's), (17, 36299), (18, 36302), (19, 36311), (20, 36314), (24, 36350), (25, 36362), (30, 36512), (31, 36518), (33, 36563), (38, 36593), (43, 36641),

Gene: Xeno_39 Start: 28678, Stop: 29070, Start Num: 11

Candidate Starts for Xeno_39:

(8, 28534), (9, 28567), (Start: 11 @28678 has 33 MA's), (Start: 12 @28681 has 32 MA's), (14, 28711), (16, 28732), (27, 28885), (29, 28933),

Gene: Zerg_53 Start: 37405, Stop: 37866, Start Num: 12

Candidate Starts for Zerg_53:

(Start: 12 @37405 has 32 MA's), (13, 37423), (Start: 15 @37444 has 1 MA's), (17, 37465), (18, 37468), (19, 37477), (20, 37480), (24, 37516), (25, 37528), (30, 37678), (31, 37684), (33, 37729), (38, 37759), (43, 37807),

Gene: Zilizebeth_37 Start: 29375, Stop: 29776, Start Num: 11

Candidate Starts for Zilizebeth_37:

(8, 29231), (9, 29264), (Start: 11 @29375 has 33 MA's), (Start: 12 @29378 has 32 MA's), (14, 29408), (16, 29429), (19, 29450), (24, 29489), (26, 29537), (27, 29585), (29, 29633), (32, 29684),