

Pham 157677



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 157677 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157677 has 133 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Nergal_42
- Track 2 : Demsculpinboyz_59, Yoshi_61
- Track 3 : Che9d_56
- Track 4 : ThetaBob_54
- Track 5 : Pixie_47, TBond007_47
- Track 6 : ShedlockHolmes_48
- Track 7 : Hurricane_48, Keshu_49, MacnCheese_49
- Track 8 : TribelTrouble_45
- Track 9 : Pharb_45
- Track 10 : SamScheppers_47, Chancellor_49, Juliette_51, Slarp_49, Cheetobro_49, Wintermute_49, OmniCritical_48, Malthus_50, Taquito_49, JF1_49, Y10_48, Mitti_49, Ruthiejr_50, Y2_48
- Track 11 : Fionnbharth_49, Eponine_51
- Track 12 : Patt_46
- Track 13 : Reptar3000_47
- Track 14 : MissDaisy_47
- Track 15 : Unicorn_47, PhelpsODU_47, Cain_48, Bryler_48
- Track 16 : Hammy_47, DarthP_47
- Track 17 : Amohnition_40
- Track 18 : Sunflower1121_51, Syra333_50, Shadow1_50
- Track 19 : Amgine_45, Ellie_43, Fefferhead_45
- Track 20 : Krueger_51
- Track 21 : Ekdilam_44
- Track 22 : Tierra_48, Phrank_48
- Track 23 : SirPhilip_47
- Track 24 : Ximenita_51
- Track 25 : Yuna_51
- Track 26 : Amohnition_47
- Track 27 : Aminay_48
- Track 28 : Boilgate_44
- Track 29 : Rose5_39, Tyson_39, Halena_39, CicholasNage_40, MAckerman_39, Calm_40, Wyatt2_40, Zaria_40, Silverleaf_39, AvadaKedavra_40, Acquire49_40
- Track 30 : OhShagHennessy_39, Wamburggrxpress_40, LeBron_40, Enceladus_39, JoeDirt_39, Appletree2_39, DirkDirk_39, UPIE_40
- Track 31 : Vetrix_42, Nicholasp3_42, GuuelaD_42, Kahlid_42, Crossroads_42, Loadrie_42, Gabriela_42, Gardann_42, Wilder_42, Rumpelstiltskin_42, MkaliMitinis3_42, Wigglewiggle_42, Zakai_42

- Track 32 : Lewan_42
- Track 33 : Winky_42, Breezona_42, Itos_41, BobsGarage_42, Netyap_42, BigCheese_42, Faith1_42, DrSeegs_42, Miley16_42, LilDestine_42
- Track 34 : Finemlucis_42
- Track 35 : Archie_42
- Track 36 : Tourach_42
- Track 37 : Lolly9_40, MsGreen_40, Jobypre_40, Kingsolomon_40, MiniLon_40, Krypton555_40, Whirlwind_41, Lumos_40, Samty_40, Clautastrophe_40, Bellis_40, Finnry_40, Ellson_40, Snenia_40, MiniMac_40, DuncansLeg_40, Jubie_40, Nicholas_40, Moostard_40
- Track 38 : DyoEdafos_41
- Track 39 : Bromden_41
- Track 40 : Chaser_39
- Track 41 : Aegeus_45, Baudelaire_45
- Track 42 : ZenTime222_36, Nairb_36, Bernal13_37, Whitty_37, Ibrahim_37, RonRayGun_37
- Track 43 : Mendokysei_35
- Track 44 : DS6A_60

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

The start number called the most often in the published annotations is 8, it was called in 92 of the 128 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_40, Amgine_45, Amohnition_47, Appletree2_39, Archie_42, AvadaKedavra_40, Bellis_40, BigCheese_42, BobsGarage_42, Breezona_42, Bromden_41, Bryler_48, Cain_48, Calm_40, Chaser_39, CicholasNage_40, Clautastrophe_40, Crossroads_42, DarthP_47, DirkDirk_39, DrSeegs_42, DuncansLeg_40, DyoEdafos_41, Ekdilam_44, Ellie_43, Ellson_40, Enceladus_39, Faith1_42, Fefferhead_45, Finemlucis_42, Finnry_40, Gabriela_42, Gardann_42, GuuelaD_42, Halena_39, Hammy_47, Hurricane_48, Itos_41, Jobypre_40, JoeDirt_39, Jubie_40, Kahlid_42, Keshu_49, Kingsolomon_40, Krueger_51, Krypton555_40, LeBron_40, Lewan_42, LilDestine_42, Loadrie_42, Lolly9_40, Lumos_40, MAckerman_39, MacnCheese_49, Miley16_42, MiniLon_40, MiniMac_40, MkaliMitinis3_42, Moostard_40, MsGreen_40, Nergal_42, Netyap_42, Nicholas_40, Nicholasp3_42, OhShagHennessy_39, Pharb_45, PhelpsODU_47, Phrank_48, Pixie_47, Rose5_39, Rumpelstiltskin_42, Samty_40, Shadow1_50, ShedlockHolmes_48, Silverleaf_39, SirPhilip_47, Snenia_40, Sunflower1121_51, Syra333_50, TBond007_47, Tierra_48, Tourach_42, TribbleTrouble_45, Tyson_39, UPIE_40, Unicorn_47, Vetrix_42, Wamburggrxpress_40, Whirlwind_41, Wigglewiggler_42, Wilder_42, Winky_42, Wyatt2_40, Ximenita_51, Yuna_51, Zakai_42, Zaria_40,

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

-

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

- Aegeus_45, Aminay_48, Amohnition_40, Baudelaire_45, Bernal13_37, Boilgate_44, Chancellor_49, Che9d_56, Cheetobro_49, DS6A_60, Demsculpinboyz_59,

Eponine_51, Fionnbharth_49, Ibrahim_37, JF1_49, Juliette_51, Malthus_50, Mendokyse_35, MissDaisy_47, Mitti_49, Nairb_36, OmniCritical_48, Patt_46, Reptar3000_47, RonRayGun_37, Ruthiejr_50, SamScheppers_47, Slarp_49, Taquito_49, ThetaBob_54, Whitty_37, Wintermute_49, Y10_48, Y2_48, Yoshi_61, ZenTime222_36,

Summary by start number:

Start 7:

- Found in 1 of 133 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amohnition_40 (K6),

Start 8:

- Found in 97 of 133 (72.9%) of genes in pham
- Manual Annotations of this start: 92 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_40 (L1), Amgine_45 (K6), Amohnition_47 (K6), Appletree2_39 (L1), Archie_42 (L2), AvadaKedavra_40 (L1), Bellis_40 (L3), BigCheese_42 (L2), BobsGarage_42 (L2), Breezona_42 (L2), Bromden_41 (L4), Bryler_48 (K6), Cain_48 (K6), Calm_40 (L1), Chaser_39 (L4), CicholasNage_40 (L1), Clautastrophe_40 (L3), Crossroads_42 (L2), DarthP_47 (K6), DirkDirk_39 (L1), DrSeegs_42 (L2), DuncansLeg_40 (L3), DyoEdafos_41 (L4), Ekdilam_44 (K6), Ellie_43 (K6), Ellson_40 (L3), Enceladus_39 (L1), Faith1_42 (L2), Fefferhead_45 (K6), Finemlucis_42 (L2), Finnry_40 (L3), Gabriela_42 (L2), Gardann_42 (L2), GuuelaD_42 (L2), Halena_39 (L1), Hammy_47 (K6), Hurricane_48 (K3), Itos_41 (L2), Jobypre_40 (L3), JoeDirt_39 (L1), Jubie_40 (L3), Kahlid_42 (L2), Keshu_49 (K3), Kingsolomon_40 (L3), Krueger_51 (K6), Krypton555_40 (L3), LeBron_40 (L1), Lewan_42 (L2), LilDestine_42 (L2), Loadrie_42 (L2), Lolly9_40 (L3), Lumos_40 (L3), MAckerman_39 (L1), MacnCheese_49 (K3), Miley16_42 (L2), MiniLon_40 (L3), MiniMac_40 (L3), MkaliMitinis3_42 (L2), Moostard_40 (L3), MsGreen_40 (L3), Nergal_42 (AG), Netyap_42 (L2), Nicholas_40 (L3), Nicholasp3_42 (L2), OhShagHennessey_39 (L1), Pharb_45 (K3), PhelpsODU_47 (K6), Phrank_48 (K6), Pixie_47 (K3), Rose5_39 (L1), Rumpelstiltskin_42 (L2), Samty_40 (L3), Shadow1_50 (K6), ShedlockHolmes_48 (K3), Silverleaf_39 (L1), SirPhilip_47 (K6), Snenia_40 (L3), Sunflower1121_51 (K6), Syra333_50 (K6), TBond007_47 (K3), Tierra_48 (K6), Tourach_42 (L2), TripleTrouble_45 (K3), Tyson_39 (L1), UPIE_40 (L1), Unicorn_47 (K6), Vetrrix_42 (L2), Wamburggrxpress_40 (L1), Whirlwind_41 (L3), Wigglewobble_42 (L2), Wilder_42 (L2), Winky_42 (L2), Wyatt2_40 (L1), Ximenita_51 (K6), Yuna_51 (K6), Zakai_42 (L2), Zaria_40 (L1),

Start 9:

- Found in 2 of 133 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus_45 (L5), Baudelaire_45 (L5),

Start 10:

- Found in 1 of 133 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Boilgate_44 (K8),

Start 11:

- Found in 1 of 133 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A_60 (singleton),

Start 12:

- Found in 32 of 133 (24.1%) of genes in pham
- Manual Annotations of this start: 20 of 128
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Aminay_48 (K7), Chancellor_49 (K4), Cheetobro_49 (K4), Eponine_51 (K4), Fionnbharth_49 (K4), JF1_49 (K4), Juliette_51 (K4), Malthus_50 (K4), MissDaisy_47 (K4), Mitti_49 (K4), OmniCritical_48 (K4), Patt_46 (K4), Reptar3000_47 (K4), Ruthiejr_50 (K4), SamScheppers_47 (K4), Slarp_49 (K4), Taquito_49 (K4), Wintermute_49 (K4), Y10_48 (K4), Y2_48 (K4),

Start 13:

- Found in 7 of 133 (5.3%) of genes in pham
- Manual Annotations of this start: 6 of 128
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Bernal13_37 (T), Ibrahim_37 (T), Nairb_36 (T), RonRayGun_37 (T), Whitty_37 (T), ZenTime222_36 (T),

Start 14:

- Found in 1 of 133 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mendokysei_35 (T),

Start 16:

- Found in 4 of 133 (3.0%) of genes in pham
- Manual Annotations of this start: 4 of 128
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Che9d_56 (F2), Demsculpinboyz_59 (F2), ThetaBob_54 (F4), Yoshi_61 (F2),

Summary by clusters:

There are 15 clusters represented in this pham: F2, F4, AG, L1, singleton, T, K3, L4, L5, L2, L3, K4, K7, K8, K6,

Info for manual annotations of cluster AG:

- Start number 8 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster F2:

- Start number 16 was manually annotated 3 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 16 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster K3:

- Start number 8 was manually annotated 7 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 12 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K6:

- Start number 7 was manually annotated 1 time for cluster K6.
- Start number 8 was manually annotated 20 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 12 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 10 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster L1:

- Start number 8 was manually annotated 18 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 8 was manually annotated 27 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 8 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 8 was manually annotated 3 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 9 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster T:

- Start number 13 was manually annotated 6 times for cluster T.
- Start number 14 was manually annotated 1 time for cluster T.

Gene Information:

Gene: Acquire49_40 Start: 33342, Stop: 33551, Start Num: 8

Candidate Starts for Acquire49_40:

(5, 33285), (Start: 8 @33342 has 92 MA's), (31, 33462),

Gene: Aegeus_45 Start: 37056, Stop: 37259, Start Num: 9

Candidate Starts for Aegeus_45:

(Start: 9 @37056 has 2 MA's), (18, 37089), (20, 37095), (22, 37119), (26, 37152), (36, 37209), (42, 37254),

Gene: Amgine_45 Start: 36475, Stop: 36687, Start Num: 8

Candidate Starts for Amgine_45:

(Start: 8 @36475 has 92 MA's), (34, 36619),

Gene: Aminay_48 Start: 36910, Stop: 37110, Start Num: 12

Candidate Starts for Aminay_48:

(1, 36673), (Start: 12 @36910 has 20 MA's), (24, 36982), (34, 37045),

Gene: Amohnition_40 Start: 32428, Stop: 32189, Start Num: 7
Candidate Starts for Amohnition_40:
(Start: 7 @32428 has 1 MA's), (18, 32362), (22, 32332), (26, 32299), (35, 32251), (37, 32233), (41, 32200),

Gene: Amohnition_47 Start: 36488, Stop: 36700, Start Num: 8
Candidate Starts for Amohnition_47:
(Start: 8 @36488 has 92 MA's), (34, 36632),

Gene: Appletree2_39 Start: 33269, Stop: 33478, Start Num: 8
Candidate Starts for Appletree2_39:
(5, 33227), (Start: 8 @33269 has 92 MA's), (23, 33338), (31, 33389), (34, 33413), (36, 33425),

Gene: Archie_42 Start: 34898, Stop: 35113, Start Num: 8
Candidate Starts for Archie_42:
(Start: 8 @34898 has 92 MA's), (18, 34940), (34, 35048), (36, 35060),

Gene: AvadaKedavra_40 Start: 33351, Stop: 33560, Start Num: 8
Candidate Starts for AvadaKedavra_40:
(5, 33294), (Start: 8 @33351 has 92 MA's), (31, 33471),

Gene: Baudelaire_45 Start: 37056, Stop: 37259, Start Num: 9
Candidate Starts for Baudelaire_45:
(Start: 9 @37056 has 2 MA's), (18, 37089), (20, 37095), (22, 37119), (26, 37152), (36, 37209), (42, 37254),

Gene: Bellis_40 Start: 34953, Stop: 35168, Start Num: 8
Candidate Starts for Bellis_40:
(Start: 8 @34953 has 92 MA's), (19, 34998), (20, 35001), (31, 35079),

Gene: Bernal13_37 Start: 30311, Stop: 30517, Start Num: 13
Candidate Starts for Bernal13_37:
(Start: 13 @30311 has 6 MA's), (43, 30506),

Gene: BigCheese_42 Start: 34694, Stop: 34909, Start Num: 8
Candidate Starts for BigCheese_42:
(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: BobsGarage_42 Start: 34694, Stop: 34909, Start Num: 8
Candidate Starts for BobsGarage_42:
(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: Boilgate_44 Start: 36561, Stop: 36746, Start Num: 10
Candidate Starts for Boilgate_44:
(Start: 10 @36561 has 1 MA's),

Gene: Breezona_42 Start: 34694, Stop: 34909, Start Num: 8
Candidate Starts for Breezona_42:
(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: Bromden_41 Start: 34169, Stop: 34384, Start Num: 8
Candidate Starts for Bromden_41:
(Start: 8 @34169 has 92 MA's), (28, 34280), (31, 34295), (34, 34319),

Gene: Bryler_48 Start: 35349, Stop: 35561, Start Num: 8
Candidate Starts for Bryler_48:
(4, 35259), (Start: 8 @35349 has 92 MA's), (Start: 12 @35364 has 20 MA's), (22, 35415), (23, 35418),
(34, 35493),

Gene: Cain_48 Start: 35337, Stop: 35549, Start Num: 8
Candidate Starts for Cain_48:
(4, 35247), (Start: 8 @35337 has 92 MA's), (Start: 12 @35352 has 20 MA's), (22, 35403), (23, 35406),
(34, 35481),

Gene: Calm_40 Start: 33357, Stop: 33566, Start Num: 8
Candidate Starts for Calm_40:
(5, 33300), (Start: 8 @33357 has 92 MA's), (31, 33477),

Gene: Chancellor_49 Start: 36414, Stop: 36599, Start Num: 12
Candidate Starts for Chancellor_49:
(Start: 12 @36414 has 20 MA's), (20, 36432), (22, 36456), (34, 36534),

Gene: Chaser_39 Start: 33432, Stop: 33659, Start Num: 8
Candidate Starts for Chaser_39:
(Start: 8 @33432 has 92 MA's), (18, 33474), (25, 33528), (31, 33558), (34, 33582),

Gene: Che9d_56 Start: 35970, Stop: 36149, Start Num: 16
Candidate Starts for Che9d_56:
(Start: 16 @35970 has 4 MA's), (21, 36009), (23, 36015), (26, 36045), (29, 36060), (30, 36063), (39,
36132), (40, 36138),

Gene: Cheetobro_49 Start: 36411, Stop: 36596, Start Num: 12
Candidate Starts for Cheetobro_49:
(Start: 12 @36411 has 20 MA's), (20, 36429), (22, 36453), (34, 36531),

Gene: CicholasNage_40 Start: 33378, Stop: 33587, Start Num: 8
Candidate Starts for CicholasNage_40:
(5, 33321), (Start: 8 @33378 has 92 MA's), (31, 33498),

Gene: Clautastrophe_40 Start: 34951, Stop: 35166, Start Num: 8
Candidate Starts for Clautastrophe_40:
(Start: 8 @34951 has 92 MA's), (19, 34996), (20, 34999), (31, 35077),

Gene: Crossroads_42 Start: 34696, Stop: 34911, Start Num: 8
Candidate Starts for Crossroads_42:
(Start: 8 @34696 has 92 MA's), (18, 34738), (20, 34744), (23, 34771), (24, 34783), (34, 34846), (36,
34858),

Gene: DS6A_60 Start: 41278, Stop: 41484, Start Num: 11
Candidate Starts for DS6A_60:
(Start: 11 @41278 has 1 MA's), (15, 41299), (17, 41308), (25, 41365), (26, 41374), (27, 41377), (32,
41401), (33, 41404), (34, 41419), (35, 41422),

Gene: DarthP_47 Start: 36375, Stop: 36584, Start Num: 8
Candidate Starts for DarthP_47:
(Start: 8 @36375 has 92 MA's), (31, 36492), (34, 36516),

Gene: Demsculpinboyz_59 Start: 36079, Stop: 36258, Start Num: 16
Candidate Starts for Demsculpinboyz_59:
(Start: 16 @36079 has 4 MA's), (21, 36118), (23, 36124), (26, 36154), (29, 36169), (30, 36172), (37, 36220), (39, 36241), (40, 36247),

Gene: DirkDirk_39 Start: 33329, Stop: 33538, Start Num: 8
Candidate Starts for DirkDirk_39:
(5, 33287), (Start: 8 @33329 has 92 MA's), (23, 33398), (31, 33449), (34, 33473), (36, 33485),

Gene: DrSeegs_42 Start: 34694, Stop: 34909, Start Num: 8
Candidate Starts for DrSeegs_42:
(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: DuncansLeg_40 Start: 34969, Stop: 35187, Start Num: 8
Candidate Starts for DuncansLeg_40:
(Start: 8 @34969 has 92 MA's), (19, 35017), (20, 35020), (31, 35098),

Gene: DyoEdafos_41 Start: 33704, Stop: 33919, Start Num: 8
Candidate Starts for DyoEdafos_41:
(3, 33605), (Start: 8 @33704 has 92 MA's), (20, 33752), (25, 33800), (31, 33830), (34, 33854),

Gene: Ekdilam_44 Start: 35937, Stop: 36149, Start Num: 8
Candidate Starts for Ekdilam_44:
(Start: 8 @35937 has 92 MA's), (23, 36006), (34, 36081),

Gene: Ellie_43 Start: 35663, Stop: 35875, Start Num: 8
Candidate Starts for Ellie_43:
(Start: 8 @35663 has 92 MA's), (34, 35807),

Gene: Ellson_40 Start: 34945, Stop: 35163, Start Num: 8
Candidate Starts for Ellson_40:
(Start: 8 @34945 has 92 MA's), (19, 34993), (20, 34996), (31, 35074),

Gene: Enceladus_39 Start: 33312, Stop: 33521, Start Num: 8
Candidate Starts for Enceladus_39:
(5, 33270), (Start: 8 @33312 has 92 MA's), (23, 33381), (31, 33432), (34, 33456), (36, 33468),

Gene: Eponine_51 Start: 37164, Stop: 37352, Start Num: 12
Candidate Starts for Eponine_51:
(6, 37113), (Start: 12 @37164 has 20 MA's), (20, 37185), (22, 37209), (34, 37287),

Gene: Faith1_42 Start: 34694, Stop: 34909, Start Num: 8
Candidate Starts for Faith1_42:
(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: Fefferhead_45 Start: 35614, Stop: 35826, Start Num: 8

Candidate Starts for Fefferhead_45:
(Start: 8 @35614 has 92 MA's), (34, 35758),

Gene: Finemlucis_42 Start: 34970, Stop: 35185, Start Num: 8
Candidate Starts for Finemlucis_42:
(Start: 8 @34970 has 92 MA's), (18, 35012), (20, 35018), (24, 35057), (34, 35120), (36, 35132),

Gene: Finnry_40 Start: 34954, Stop: 35169, Start Num: 8
Candidate Starts for Finnry_40:
(Start: 8 @34954 has 92 MA's), (19, 34999), (20, 35002), (31, 35080),

Gene: Fionnbharth_49 Start: 36562, Stop: 36750, Start Num: 12
Candidate Starts for Fionnbharth_49:
(6, 36511), (Start: 12 @36562 has 20 MA's), (20, 36583), (22, 36607), (34, 36685),

Gene: Gabriela_42 Start: 34956, Stop: 35171, Start Num: 8
Candidate Starts for Gabriela_42:
(Start: 8 @34956 has 92 MA's), (18, 34998), (20, 35004), (23, 35031), (24, 35043), (34, 35106), (36, 35118),

Gene: Gardann_42 Start: 34695, Stop: 34910, Start Num: 8
Candidate Starts for Gardann_42:
(Start: 8 @34695 has 92 MA's), (18, 34737), (20, 34743), (23, 34770), (24, 34782), (34, 34845), (36, 34857),

Gene: GuuelaD_42 Start: 34733, Stop: 34948, Start Num: 8
Candidate Starts for GuuelaD_42:
(Start: 8 @34733 has 92 MA's), (18, 34775), (20, 34781), (23, 34808), (24, 34820), (34, 34883), (36, 34895),

Gene: Halena_39 Start: 33353, Stop: 33562, Start Num: 8
Candidate Starts for Halena_39:
(5, 33296), (Start: 8 @33353 has 92 MA's), (31, 33473),

Gene: Hammy_47 Start: 36363, Stop: 36572, Start Num: 8
Candidate Starts for Hammy_47:
(Start: 8 @36363 has 92 MA's), (31, 36480), (34, 36504),

Gene: Hurricane_48 Start: 36096, Stop: 36308, Start Num: 8
Candidate Starts for Hurricane_48:
(Start: 8 @36096 has 92 MA's), (31, 36216), (34, 36240),

Gene: Ibrahim_37 Start: 30757, Stop: 30963, Start Num: 13
Candidate Starts for Ibrahim_37:
(Start: 13 @30757 has 6 MA's), (43, 30952),

Gene: Itos_41 Start: 33600, Stop: 33815, Start Num: 8
Candidate Starts for Itos_41:
(Start: 8 @33600 has 92 MA's), (18, 33642), (20, 33648), (23, 33675), (24, 33687), (34, 33750), (36, 33762),

Gene: JF1_49 Start: 36482, Stop: 36667, Start Num: 12
Candidate Starts for JF1_49:

(Start: 12 @36482 has 20 MA's), (20, 36500), (22, 36524), (34, 36602),

Gene: Jobypre_40 Start: 34951, Stop: 35166, Start Num: 8

Candidate Starts for Jobypre_40:

(Start: 8 @34951 has 92 MA's), (19, 34996), (20, 34999), (31, 35077),

Gene: JoeDirt_39 Start: 33310, Stop: 33519, Start Num: 8

Candidate Starts for JoeDirt_39:

(5, 33268), (Start: 8 @33310 has 92 MA's), (23, 33379), (31, 33430), (34, 33454), (36, 33466),

Gene: Jubie_40 Start: 34952, Stop: 35167, Start Num: 8

Candidate Starts for Jubie_40:

(Start: 8 @34952 has 92 MA's), (19, 34997), (20, 35000), (31, 35078),

Gene: Juliette_51 Start: 36638, Stop: 36823, Start Num: 12

Candidate Starts for Juliette_51:

(Start: 12 @36638 has 20 MA's), (20, 36656), (22, 36680), (34, 36758),

Gene: Kahlid_42 Start: 34700, Stop: 34915, Start Num: 8

Candidate Starts for Kahlid_42:

(Start: 8 @34700 has 92 MA's), (18, 34742), (20, 34748), (23, 34775), (24, 34787), (34, 34850), (36, 34862),

Gene: Keshu_49 Start: 36154, Stop: 36366, Start Num: 8

Candidate Starts for Keshu_49:

(Start: 8 @36154 has 92 MA's), (31, 36274), (34, 36298),

Gene: Kingsolomon_40 Start: 34951, Stop: 35166, Start Num: 8

Candidate Starts for Kingsolomon_40:

(Start: 8 @34951 has 92 MA's), (19, 34996), (20, 34999), (31, 35077),

Gene: Krueger_51 Start: 36343, Stop: 36555, Start Num: 8

Candidate Starts for Krueger_51:

(Start: 8 @36343 has 92 MA's), (Start: 12 @36358 has 20 MA's), (22, 36409), (23, 36412), (34, 36487),

Gene: Krypton555_40 Start: 34868, Stop: 35083, Start Num: 8

Candidate Starts for Krypton555_40:

(Start: 8 @34868 has 92 MA's), (19, 34913), (20, 34916), (31, 34994),

Gene: LeBron_40 Start: 33354, Stop: 33563, Start Num: 8

Candidate Starts for LeBron_40:

(5, 33312), (Start: 8 @33354 has 92 MA's), (23, 33423), (31, 33474), (34, 33498), (36, 33510),

Gene: Lewan_42 Start: 34687, Stop: 34902, Start Num: 8

Candidate Starts for Lewan_42:

(Start: 8 @34687 has 92 MA's), (18, 34729), (20, 34735), (23, 34762), (24, 34774), (34, 34837), (36, 34849),

Gene: LilDestine_42 Start: 34692, Stop: 34907, Start Num: 8

Candidate Starts for LilDestine_42:

(Start: 8 @34692 has 92 MA's), (18, 34734), (20, 34740), (23, 34767), (24, 34779), (34, 34842), (36, 34854),

Gene: Loadrie_42 Start: 34726, Stop: 34941, Start Num: 8
Candidate Starts for Loadrie_42:
(Start: 8 @34726 has 92 MA's), (18, 34768), (20, 34774), (23, 34801), (24, 34813), (34, 34876), (36, 34888),

Gene: Lolly9_40 Start: 34759, Stop: 34977, Start Num: 8
Candidate Starts for Lolly9_40:
(Start: 8 @34759 has 92 MA's), (19, 34807), (20, 34810), (31, 34888),

Gene: Lumos_40 Start: 34948, Stop: 35163, Start Num: 8
Candidate Starts for Lumos_40:
(Start: 8 @34948 has 92 MA's), (19, 34993), (20, 34996), (31, 35074),

Gene: MAckerman_39 Start: 33347, Stop: 33556, Start Num: 8
Candidate Starts for MAckerman_39:
(5, 33290), (Start: 8 @33347 has 92 MA's), (31, 33467),

Gene: MacnCheese_49 Start: 37043, Stop: 37276, Start Num: 8
Candidate Starts for MacnCheese_49:
(Start: 8 @37043 has 92 MA's), (31, 37163), (34, 37187),

Gene: Malthus_50 Start: 36326, Stop: 36511, Start Num: 12
Candidate Starts for Malthus_50:
(Start: 12 @36326 has 20 MA's), (20, 36344), (22, 36368), (34, 36446),

Gene: Mendokysei_35 Start: 29852, Stop: 30055, Start Num: 14
Candidate Starts for Mendokysei_35:
(Start: 13 @29849 has 6 MA's), (Start: 14 @29852 has 1 MA's), (43, 30044),

Gene: Miley16_42 Start: 34694, Stop: 34909, Start Num: 8
Candidate Starts for Miley16_42:
(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: MiniLon_40 Start: 34760, Stop: 34978, Start Num: 8
Candidate Starts for MiniLon_40:
(Start: 8 @34760 has 92 MA's), (19, 34808), (20, 34811), (31, 34889),

Gene: MiniMac_40 Start: 34757, Stop: 34975, Start Num: 8
Candidate Starts for MiniMac_40:
(Start: 8 @34757 has 92 MA's), (19, 34805), (20, 34808), (31, 34886),

Gene: MissDaisy_47 Start: 35801, Stop: 35989, Start Num: 12
Candidate Starts for MissDaisy_47:
(Start: 12 @35801 has 20 MA's), (22, 35846), (34, 35924),

Gene: Mitti_49 Start: 36502, Stop: 36687, Start Num: 12
Candidate Starts for Mitti_49:
(Start: 12 @36502 has 20 MA's), (20, 36520), (22, 36544), (34, 36622),

Gene: MkaliMitinis3_42 Start: 34696, Stop: 34911, Start Num: 8
Candidate Starts for MkaliMitinis3_42:

(Start: 8 @34696 has 92 MA's), (18, 34738), (20, 34744), (23, 34771), (24, 34783), (34, 34846), (36, 34858),

Gene: Moostard_40 Start: 34953, Stop: 35168, Start Num: 8

Candidate Starts for Moostard_40:

(Start: 8 @34953 has 92 MA's), (19, 34998), (20, 35001), (31, 35079),

Gene: MsGreen_40 Start: 34951, Stop: 35166, Start Num: 8

Candidate Starts for MsGreen_40:

(Start: 8 @34951 has 92 MA's), (19, 34996), (20, 34999), (31, 35077),

Gene: Nairb_36 Start: 30311, Stop: 30517, Start Num: 13

Candidate Starts for Nairb_36:

(Start: 13 @30311 has 6 MA's), (43, 30506),

Gene: Nergal_42 Start: 34081, Stop: 34293, Start Num: 8

Candidate Starts for Nergal_42:

(Start: 8 @34081 has 92 MA's), (31, 34201), (34, 34225),

Gene: Netyap_42 Start: 34694, Stop: 34909, Start Num: 8

Candidate Starts for Netyap_42:

(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: Nicholas_40 Start: 34951, Stop: 35166, Start Num: 8

Candidate Starts for Nicholas_40:

(Start: 8 @34951 has 92 MA's), (19, 34996), (20, 34999), (31, 35077),

Gene: Nicholasp3_42 Start: 34695, Stop: 34910, Start Num: 8

Candidate Starts for Nicholasp3_42:

(Start: 8 @34695 has 92 MA's), (18, 34737), (20, 34743), (23, 34770), (24, 34782), (34, 34845), (36, 34857),

Gene: OhShagHennessy_39 Start: 33300, Stop: 33509, Start Num: 8

Candidate Starts for OhShagHennessy_39:

(5, 33258), (Start: 8 @33300 has 92 MA's), (23, 33369), (31, 33420), (34, 33444), (36, 33456),

Gene: OmniCritical_48 Start: 36311, Stop: 36496, Start Num: 12

Candidate Starts for OmniCritical_48:

(Start: 12 @36311 has 20 MA's), (20, 36329), (22, 36353), (34, 36431),

Gene: Patt_46 Start: 35525, Stop: 35713, Start Num: 12

Candidate Starts for Patt_46:

(1, 35309), (Start: 12 @35525 has 20 MA's), (22, 35570), (34, 35648),

Gene: Pharb_45 Start: 34846, Stop: 35067, Start Num: 8

Candidate Starts for Pharb_45:

(4, 34756), (Start: 8 @34846 has 92 MA's), (31, 34966), (34, 34990),

Gene: PhelpsODU_47 Start: 35370, Stop: 35582, Start Num: 8

Candidate Starts for PhelpsODU_47:

(4, 35280), (Start: 8 @35370 has 92 MA's), (Start: 12 @35385 has 20 MA's), (22, 35436), (23, 35439), (34, 35514),

Gene: Phrank_48 Start: 35327, Stop: 35539, Start Num: 8

Candidate Starts for Phrank_48:

(4, 35237), (Start: 8 @35327 has 92 MA's), (Start: 12 @35342 has 20 MA's), (22, 35393), (23, 35396), (34, 35471),

Gene: Pixie_47 Start: 35607, Stop: 35819, Start Num: 8

Candidate Starts for Pixie_47:

(Start: 8 @35607 has 92 MA's), (19, 35646), (31, 35727), (34, 35751),

Gene: Reptar3000_47 Start: 35516, Stop: 35701, Start Num: 12

Candidate Starts for Reptar3000_47:

(Start: 12 @35516 has 20 MA's), (34, 35636),

Gene: RonRayGun_37 Start: 30757, Stop: 30963, Start Num: 13

Candidate Starts for RonRayGun_37:

(Start: 13 @30757 has 6 MA's), (43, 30952),

Gene: Rose5_39 Start: 33342, Stop: 33551, Start Num: 8

Candidate Starts for Rose5_39:

(5, 33285), (Start: 8 @33342 has 92 MA's), (31, 33462),

Gene: Rumpelstiltskin_42 Start: 34961, Stop: 35173, Start Num: 8

Candidate Starts for Rumpelstiltskin_42:

(Start: 8 @34961 has 92 MA's), (18, 35003), (20, 35009), (23, 35036), (24, 35048), (34, 35111), (36, 35123),

Gene: Ruthiejr_50 Start: 36376, Stop: 36561, Start Num: 12

Candidate Starts for Ruthiejr_50:

(Start: 12 @36376 has 20 MA's), (20, 36394), (22, 36418), (34, 36496),

Gene: SamScheppers_47 Start: 36805, Stop: 36990, Start Num: 12

Candidate Starts for SamScheppers_47:

(Start: 12 @36805 has 20 MA's), (20, 36823), (22, 36847), (34, 36925),

Gene: Samty_40 Start: 34952, Stop: 35167, Start Num: 8

Candidate Starts for Samty_40:

(Start: 8 @34952 has 92 MA's), (19, 34997), (20, 35000), (31, 35078),

Gene: Shadow1_50 Start: 36488, Stop: 36700, Start Num: 8

Candidate Starts for Shadow1_50:

(Start: 8 @36488 has 92 MA's), (Start: 12 @36503 has 20 MA's), (34, 36632), (42, 36689),

Gene: ShedlockHolmes_48 Start: 36132, Stop: 36344, Start Num: 8

Candidate Starts for ShedlockHolmes_48:

(Start: 8 @36132 has 92 MA's), (31, 36252), (34, 36276),

Gene: Silverleaf_39 Start: 33342, Stop: 33551, Start Num: 8

Candidate Starts for Silverleaf_39:

(5, 33285), (Start: 8 @33342 has 92 MA's), (31, 33462),

Gene: SirPhilip_47 Start: 36707, Stop: 36919, Start Num: 8

Candidate Starts for SirPhilip_47:

(2, 36575), (Start: 8 @36707 has 92 MA's), (23, 36776), (34, 36851),

Gene: Slarp_49 Start: 36414, Stop: 36599, Start Num: 12

Candidate Starts for Slarp_49:

(Start: 12 @36414 has 20 MA's), (20, 36432), (22, 36456), (34, 36534),

Gene: Snenia_40 Start: 34952, Stop: 35167, Start Num: 8

Candidate Starts for Snenia_40:

(Start: 8 @34952 has 92 MA's), (19, 34997), (20, 35000), (31, 35078),

Gene: Sunflower1121_51 Start: 36589, Stop: 36801, Start Num: 8

Candidate Starts for Sunflower1121_51:

(Start: 8 @36589 has 92 MA's), (Start: 12 @36604 has 20 MA's), (34, 36733), (42, 36790),

Gene: Syra333_50 Start: 36256, Stop: 36468, Start Num: 8

Candidate Starts for Syra333_50:

(Start: 8 @36256 has 92 MA's), (Start: 12 @36271 has 20 MA's), (34, 36400), (42, 36457),

Gene: TBond007_47 Start: 35606, Stop: 35818, Start Num: 8

Candidate Starts for TBond007_47:

(Start: 8 @35606 has 92 MA's), (19, 35645), (31, 35726), (34, 35750),

Gene: Taquito_49 Start: 36661, Stop: 36846, Start Num: 12

Candidate Starts for Taquito_49:

(Start: 12 @36661 has 20 MA's), (20, 36679), (22, 36703), (34, 36781),

Gene: ThetaBob_54 Start: 36886, Stop: 37065, Start Num: 16

Candidate Starts for ThetaBob_54:

(Start: 16 @36886 has 4 MA's), (21, 36925), (23, 36931), (26, 36961), (29, 36976), (30, 36979), (37, 37027), (38, 37039), (39, 37048), (40, 37054),

Gene: Tierra_48 Start: 36138, Stop: 36350, Start Num: 8

Candidate Starts for Tierra_48:

(4, 36048), (Start: 8 @36138 has 92 MA's), (Start: 12 @36153 has 20 MA's), (22, 36204), (23, 36207), (34, 36282),

Gene: Tourach_42 Start: 34709, Stop: 34924, Start Num: 8

Candidate Starts for Tourach_42:

(Start: 8 @34709 has 92 MA's), (18, 34751), (20, 34757), (22, 34781), (34, 34859), (36, 34871),

Gene: TribelTrouble_45 Start: 35497, Stop: 35709, Start Num: 8

Candidate Starts for TribelTrouble_45:

(Start: 8 @35497 has 92 MA's), (Start: 12 @35512 has 20 MA's), (34, 35641),

Gene: Tyson_39 Start: 33343, Stop: 33552, Start Num: 8

Candidate Starts for Tyson_39:

(5, 33286), (Start: 8 @33343 has 92 MA's), (31, 33463),

Gene: UPIE_40 Start: 33326, Stop: 33535, Start Num: 8

Candidate Starts for UPIE_40:

(5, 33284), (Start: 8 @33326 has 92 MA's), (23, 33395), (31, 33446), (34, 33470), (36, 33482),

Gene: Unicorn_47 Start: 35370, Stop: 35582, Start Num: 8

Candidate Starts for Unicorn_47:

(4, 35280), (Start: 8 @35370 has 92 MA's), (Start: 12 @35385 has 20 MA's), (22, 35436), (23, 35439), (34, 35514),

Gene: Vetric_42 Start: 34701, Stop: 34916, Start Num: 8

Candidate Starts for Vetric_42:

(Start: 8 @34701 has 92 MA's), (18, 34743), (20, 34749), (23, 34776), (24, 34788), (34, 34851), (36, 34863),

Gene: Wamburgexpress_40 Start: 33341, Stop: 33550, Start Num: 8

Candidate Starts for Wamburgexpress_40:

(5, 33299), (Start: 8 @33341 has 92 MA's), (23, 33410), (31, 33461), (34, 33485), (36, 33497),

Gene: Whirlwind_41 Start: 34710, Stop: 34925, Start Num: 8

Candidate Starts for Whirlwind_41:

(Start: 8 @34710 has 92 MA's), (19, 34755), (20, 34758), (31, 34836),

Gene: Whitty_37 Start: 30311, Stop: 30517, Start Num: 13

Candidate Starts for Whitty_37:

(Start: 13 @30311 has 6 MA's), (43, 30506),

Gene: Wigglewigggle_42 Start: 34727, Stop: 34942, Start Num: 8

Candidate Starts for Wigglewigggle_42:

(Start: 8 @34727 has 92 MA's), (18, 34769), (20, 34775), (23, 34802), (24, 34814), (34, 34877), (36, 34889),

Gene: Wilder_42 Start: 34700, Stop: 34915, Start Num: 8

Candidate Starts for Wilder_42:

(Start: 8 @34700 has 92 MA's), (18, 34742), (20, 34748), (23, 34775), (24, 34787), (34, 34850), (36, 34862),

Gene: Winky_42 Start: 34694, Stop: 34909, Start Num: 8

Candidate Starts for Winky_42:

(Start: 8 @34694 has 92 MA's), (18, 34736), (20, 34742), (23, 34769), (24, 34781), (34, 34844), (36, 34856),

Gene: Wintermute_49 Start: 36563, Stop: 36748, Start Num: 12

Candidate Starts for Wintermute_49:

(Start: 12 @36563 has 20 MA's), (20, 36581), (22, 36605), (34, 36683),

Gene: Wyatt2_40 Start: 33342, Stop: 33551, Start Num: 8

Candidate Starts for Wyatt2_40:

(5, 33285), (Start: 8 @33342 has 92 MA's), (31, 33462),

Gene: Ximenita_51 Start: 36442, Stop: 36654, Start Num: 8

Candidate Starts for Ximenita_51:

(Start: 8 @36442 has 92 MA's), (Start: 12 @36457 has 20 MA's), (34, 36586), (39, 36628), (42, 36643),

Gene: Y10_48 Start: 36482, Stop: 36667, Start Num: 12

Candidate Starts for Y10_48:

(Start: 12 @36482 has 20 MA's), (20, 36500), (22, 36524), (34, 36602),

Gene: Y2_48 Start: 36482, Stop: 36667, Start Num: 12
Candidate Starts for Y2_48:
(Start: 12 @36482 has 20 MA's), (20, 36500), (22, 36524), (34, 36602),

Gene: Yoshi_61 Start: 38120, Stop: 38299, Start Num: 16
Candidate Starts for Yoshi_61:
(Start: 16 @38120 has 4 MA's), (21, 38159), (23, 38165), (26, 38195), (29, 38210), (30, 38213), (37, 38261), (39, 38282), (40, 38288),

Gene: Yuna_51 Start: 37201, Stop: 37413, Start Num: 8
Candidate Starts for Yuna_51:
(Start: 8 @37201 has 92 MA's), (34, 37345), (42, 37402),

Gene: Zakai_42 Start: 34952, Stop: 35167, Start Num: 8
Candidate Starts for Zakai_42:
(Start: 8 @34952 has 92 MA's), (18, 34994), (20, 35000), (23, 35027), (24, 35039), (34, 35102), (36, 35114),

Gene: Zaria_40 Start: 33357, Stop: 33566, Start Num: 8
Candidate Starts for Zaria_40:
(5, 33300), (Start: 8 @33357 has 92 MA's), (31, 33477),

Gene: ZenTime222_36 Start: 30311, Stop: 30517, Start Num: 13
Candidate Starts for ZenTime222_36:
(Start: 13 @30311 has 6 MA's), (43, 30506),