

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 305149 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305149 has 39 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Sephiroth_15, Syleon_15, Kudrefre_14
- Track 2 : Octobien14_15
- Track 3 : Rabbitrun_16
- Track 4 : LilJank_14, Trax_14
- Track 5 : Neville_14
- Track 6 : Skinny_17, Bricole_16, Dulcita_17, IPhane7_16, Bongo_16, FreakyGoo_17, KleverKiS_16, Diminimus_17, LilhomieP_15, Glaske16_17, SlimJimmy_15, TpudiCK_17, PegLeg_16, Izel_17, TyDawg_16, Auspice_16
- Track 7 : RoseMarie_16
- Track 8 : Reindeer_14
- Track 9 : Rey_20
- Track 10 : Aziz_20, GenevaB15_20
- Track 11 : MrMagoo_20, GardenSalsa_20
- Track 12 : Estes_21
- Track 13 : Nanosmite_20
- Track 14 : Azrael100_27, Cosmo_28, EniyanLRS_25, MaryV_28, Wildcat_28
- Track 15 : Kumao_15

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

The start number called the most often in the published annotations is 2, it was called in 22 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Auspice_16, Aziz_20, Bongo_16, Bricole_16, Diminimus_17, Dulcita_17, Estes_21, FreakyGoo_17, GardenSalsa_20, GenevaB15_20, Glaske16_17, IPhane7_16, Izel_17, KleverKiS_16, LilhomieP_15, MrMagoo_20, Nanosmite_20, PegLeg_16, Reindeer_14, Rey_20, RoseMarie_16, Skinny_17, SlimJimmy_15, TpudiCK_17, TyDawg_16,

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

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

- Azrael100_27, Cosmo_28, EniyanLRS_25, Kudrefre_14, Kumao_15, LilJank_14, MaryV_28, Neville_14, Octobien14_15, Rabbitrun_16, Sephiroth_15, Syleon_15, Trax_14, Wildcat_28,

Summary by start number:

Start 2:

- Found in 25 of 39 (64.1%) of genes in pham
- Manual Annotations of this start: 22 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Auspice_16 (M1), Aziz_20 (M2), Bongo_16 (M1), Bricole_16 (M1), Diminimus_17 (M1), Dulcita_17 (M1), Estes_21 (M2), FreakyGoo_17 (M1), GardenSalsa_20 (M2), GenevaB15_20 (M2), Glaske16_17 (M1), IPhane7_16 (M1), Izel_17 (M1), KleverKiS_16 (M1), LilhomieP_15 (M1), MrMagoo_20 (M2), Nanosmite_20 (M3), PegLeg_16 (M1), Reindeer_14 (M1), Rey_20 (M2), RoseMarie_16 (M1), Skinny_17 (M1), SlimJimmy_15 (M1), TpudiCK_17 (M1), TyDawg_16 (M1),

Start 3:

- Found in 5 of 39 (12.8%) of genes in pham
- Manual Annotations of this start: 5 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100_27 (V), Cosmo_28 (V), EniyanLRS_25 (V), MaryV_28 (V), Wildcat_28 (V),

Start 4:

- Found in 1 of 39 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao_15 (singleton),

Start 5:

- Found in 4 of 39 (10.3%) of genes in pham
- Manual Annotations of this start: 3 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilJank_14 (DU2), Neville_14 (DU2), Rabbitrun_16 (DU2), Trax_14 (DU2),

Start 6:

- Found in 1 of 39 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Octobien14_15 (DU1),

Start 7:

- Found in 3 of 39 (7.7%) of genes in pham
- Manual Annotations of this start: 3 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre_14 (DU1), Sephiroth_15 (DU1), Syleon_15 (DU1),

Summary by clusters:

There are 7 clusters represented in this pham: singleton, M2, M1, M3, V, DU1, DU2,

Info for manual annotations of cluster DU1:

- Start number 6 was manually annotated 1 time for cluster DU1.
- Start number 7 was manually annotated 3 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 5 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster M1:

- Start number 2 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 2 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 2 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 3 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Auspice_16 Start: 7882, Stop: 9042, Start Num: 2

Candidate Starts for Auspice_16:

(Start: 2 @7882 has 22 MA's), (13, 7990), (21, 8056), (23, 8077), (28, 8131), (33, 8170), (36, 8185), (38, 8227), (40, 8248), (43, 8284), (44, 8293), (55, 8383), (56, 8392), (57, 8395), (61, 8419), (65, 8467), (72, 8521), (73, 8536), (76, 8590), (80, 8692), (86, 8755),

Gene: Aziz_20 Start: 8460, Stop: 9641, Start Num: 2

Candidate Starts for Aziz_20:

(Start: 2 @8460 has 22 MA's), (8, 8523), (11, 8562), (16, 8595), (20, 8628), (27, 8694), (29, 8730), (31, 8742), (33, 8748), (36, 8763), (44, 8871), (51, 8934), (57, 8979), (61, 9009), (65, 9057), (69, 9090), (71, 9108), (75, 9162), (81, 9303), (82, 9312), (86, 9345),

Gene: Azrael100_27 Start: 11178, Stop: 12212, Start Num: 3

Candidate Starts for Azrael100_27:

(Start: 3 @11178 has 5 MA's), (13, 11268), (15, 11283), (17, 11310), (33, 11448), (37, 11481), (49, 11559), (53, 11580), (54, 11583), (57, 11616), (58, 11622), (60, 11640), (61, 11643), (70, 11730), (77, 11835), (84, 11934), (86, 11943), (87, 11964), (93, 12009), (95, 12045), (99, 12096), (102, 12117), (104, 12138), (106, 12162), (107, 12174),

Gene: Bongo_16 Start: 7882, Stop: 9042, Start Num: 2

Candidate Starts for Bongo_16:

(Start: 2 @7882 has 22 MA's), (13, 7990), (21, 8056), (23, 8077), (28, 8131), (33, 8170), (36, 8185), (38, 8227), (40, 8248), (43, 8284), (44, 8293), (55, 8383), (56, 8392), (57, 8395), (61, 8419), (65, 8467), (72, 8521), (73, 8536), (76, 8590), (80, 8692), (86, 8755),

Gene: Bricole_16 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for Bricole_16:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: Cosmo_28 Start: 11185, Stop: 12219, Start Num: 3

Candidate Starts for Cosmo_28:

(Start: 3 @11185 has 5 MA's), (13, 11275), (15, 11290), (17, 11317), (33, 11455), (37, 11488), (49, 11566), (53, 11587), (54, 11590), (57, 11623), (58, 11629), (60, 11647), (61, 11650), (70, 11737), (77, 11842), (84, 11941), (86, 11950), (87, 11971), (93, 12016), (95, 12052), (99, 12103), (102, 12124), (104, 12145), (106, 12169), (107, 12181),

Gene: Diminimus_17 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for Diminimus_17:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: Dulcita_17 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for Dulcita_17:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: EniyanLRS_25 Start: 10876, Stop: 11910, Start Num: 3

Candidate Starts for EniyanLRS_25:

(Start: 3 @10876 has 5 MA's), (13, 10966), (15, 10981), (17, 11008), (33, 11146), (37, 11179), (49, 11257), (53, 11278), (54, 11281), (57, 11314), (58, 11320), (60, 11338), (61, 11341), (70, 11428), (77, 11533), (84, 11632), (86, 11641), (87, 11662), (93, 11707), (95, 11743), (99, 11794), (102, 11815), (104, 11836), (106, 11860), (107, 11872),

Gene: Estes_21 Start: 8605, Stop: 9780, Start Num: 2

Candidate Starts for Estes_21:

(Start: 2 @8605 has 22 MA's), (8, 8668), (11, 8707), (16, 8740), (20, 8773), (27, 8839), (29, 8875), (31, 8887), (33, 8893), (36, 8908), (44, 9016), (45, 9025), (57, 9124), (61, 9148), (65, 9196), (71, 9247), (75, 9301), (81, 9442), (86, 9484),

Gene: FreakyGoo_17 Start: 7882, Stop: 9042, Start Num: 2

Candidate Starts for FreakyGoo_17:

(Start: 2 @7882 has 22 MA's), (13, 7990), (21, 8056), (23, 8077), (28, 8131), (33, 8170), (36, 8185), (38, 8227), (40, 8248), (43, 8284), (44, 8293), (55, 8383), (56, 8392), (57, 8395), (61, 8419), (65, 8467), (72, 8521), (73, 8536), (76, 8590), (80, 8692), (86, 8755),

Gene: GardenSalsa_20 Start: 8439, Stop: 9614, Start Num: 2

Candidate Starts for GardenSalsa_20:

(Start: 2 @8439 has 22 MA's), (8, 8502), (11, 8541), (16, 8574), (20, 8607), (27, 8673), (29, 8709), (31, 8721), (33, 8727), (36, 8742), (44, 8850), (45, 8859), (57, 8958), (61, 8982), (65, 9030), (69, 9063), (71, 9081), (75, 9135), (81, 9276), (86, 9318),

Gene: GenevaB15_20 Start: 8460, Stop: 9641, Start Num: 2

Candidate Starts for GenevaB15_20:

(Start: 2 @8460 has 22 MA's), (8, 8523), (11, 8562), (16, 8595), (20, 8628), (27, 8694), (29, 8730), (31, 8742), (33, 8748), (36, 8763), (44, 8871), (51, 8934), (57, 8979), (61, 9009), (65, 9057), (69, 9090), (71, 9108), (75, 9162), (81, 9303), (82, 9312), (86, 9345),

Gene: Glaske16_17 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for Glaske16_17:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: IPhane7_16 Start: 7882, Stop: 9042, Start Num: 2

Candidate Starts for IPhane7_16:

(Start: 2 @7882 has 22 MA's), (13, 7990), (21, 8056), (23, 8077), (28, 8131), (33, 8170), (36, 8185), (38, 8227), (40, 8248), (43, 8284), (44, 8293), (55, 8383), (56, 8392), (57, 8395), (61, 8419), (65, 8467), (72, 8521), (73, 8536), (76, 8590), (80, 8692), (86, 8755),

Gene: Izel_17 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for Izel_17:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: KleverKiS_16 Start: 7878, Stop: 9038, Start Num: 2

Candidate Starts for KleverKiS_16:

(Start: 2 @7878 has 22 MA's), (13, 7986), (21, 8052), (23, 8073), (28, 8127), (33, 8166), (36, 8181), (38, 8223), (40, 8244), (43, 8280), (44, 8289), (55, 8379), (56, 8388), (57, 8391), (61, 8415), (65, 8463), (72, 8517), (73, 8532), (76, 8586), (80, 8688), (86, 8751),

Gene: Kudefre_14 Start: 7918, Stop: 8928, Start Num: 7

Candidate Starts for Kudefre_14:

(Start: 7 @7918 has 3 MA's), (9, 7936), (10, 7945), (11, 7960), (18, 8017), (26, 8089), (32, 8143), (53, 8293), (57, 8329), (61, 8353), (65, 8401), (71, 8452), (72, 8455), (74, 8503), (78, 8566), (79, 8584), (84, 8668), (87, 8698), (91, 8728), (95, 8776), (98, 8824), (100, 8839), (101, 8845),

Gene: Kumao_15 Start: 7305, Stop: 8408, Start Num: 4

Candidate Starts for Kumao_15:

(Start: 4 @7305 has 1 MA's), (13, 7392), (25, 7509), (27, 7518), (35, 7584), (47, 7728), (48, 7734), (50, 7761), (57, 7809), (59, 7830), (61, 7833), (64, 7869), (66, 7899), (68, 7911), (73, 7950), (76, 8004), (86, 8133), (87, 8154), (89, 8169), (94, 8238), (96, 8259), (102, 8313), (108, 8373),

Gene: LilJank_14 Start: 7803, Stop: 8822, Start Num: 5

Candidate Starts for LilJank_14:

(Start: 5 @7803 has 3 MA's), (12, 7872), (18, 7926), (24, 7977), (36, 8070), (54, 8217), (55, 8238), (57, 8250), (61, 8274), (62, 8286), (65, 8322), (67, 8346), (74, 8424), (75, 8427), (80, 8532), (82, 8562), (83, 8583), (90, 8634), (91, 8646), (103, 8769),

Gene: LilhomieP_15 Start: 7882, Stop: 9042, Start Num: 2

Candidate Starts for LilhomieP_15:

(Start: 2 @7882 has 22 MA's), (13, 7990), (21, 8056), (23, 8077), (28, 8131), (33, 8170), (36, 8185), (38, 8227), (40, 8248), (43, 8284), (44, 8293), (55, 8383), (56, 8392), (57, 8395), (61, 8419), (65, 8467), (72, 8521), (73, 8536), (76, 8590), (80, 8692), (86, 8755),

Gene: MaryV_28 Start: 11148, Stop: 12182, Start Num: 3

Candidate Starts for MaryV_28:

(Start: 3 @11148 has 5 MA's), (13, 11238), (15, 11253), (17, 11280), (33, 11418), (37, 11451), (49, 11529), (53, 11550), (54, 11553), (57, 11586), (58, 11592), (60, 11610), (61, 11613), (70, 11700), (77,

11805), (84, 11904), (86, 11913), (87, 11934), (93, 11979), (95, 12015), (99, 12066), (102, 12087), (104, 12108), (106, 12132), (107, 12144),

Gene: MrMagoo_20 Start: 8439, Stop: 9614, Start Num: 2

Candidate Starts for MrMagoo_20:

(Start: 2 @8439 has 22 MA's), (8, 8502), (11, 8541), (16, 8574), (20, 8607), (27, 8673), (29, 8709), (31, 8721), (33, 8727), (36, 8742), (44, 8850), (45, 8859), (57, 8958), (61, 8982), (65, 9030), (69, 9063), (71, 9081), (75, 9135), (81, 9276), (86, 9318),

Gene: Nanosmite_20 Start: 8660, Stop: 9835, Start Num: 2

Candidate Starts for Nanosmite_20:

(Start: 2 @8660 has 22 MA's), (14, 8771), (16, 8795), (19, 8825), (23, 8855), (25, 8885), (28, 8909), (30, 8936), (33, 8948), (37, 8981), (39, 9011), (41, 9035), (42, 9056), (46, 9089), (50, 9131), (57, 9179), (61, 9203), (64, 9239), (65, 9251), (66, 9269), (68, 9281), (71, 9302), (72, 9305), (76, 9374), (86, 9539),

Gene: Neville_14 Start: 7752, Stop: 8771, Start Num: 5

Candidate Starts for Neville_14:

(1, 7683), (Start: 5 @7752 has 3 MA's), (12, 7821), (18, 7875), (24, 7926), (36, 8019), (54, 8166), (55, 8187), (57, 8199), (61, 8223), (62, 8235), (65, 8271), (67, 8295), (74, 8373), (75, 8376), (80, 8481), (82, 8511), (83, 8532), (90, 8583), (91, 8595), (103, 8718),

Gene: Octobien14_15 Start: 8989, Stop: 9996, Start Num: 6

Candidate Starts for Octobien14_15:

(Start: 6 @8989 has 1 MA's), (10, 9022), (18, 9094), (22, 9115), (26, 9166), (36, 9238), (48, 9331), (57, 9406), (61, 9430), (65, 9478), (71, 9529), (75, 9583), (78, 9643), (85, 9748), (86, 9754), (87, 9772), (95, 9844), (97, 9874), (99, 9895), (100, 9907), (105, 9937),

Gene: PegLeg_16 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for PegLeg_16:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: Rabbitrun_16 Start: 8261, Stop: 9289, Start Num: 5

Candidate Starts for Rabbitrun_16:

(Start: 5 @8261 has 3 MA's), (13, 8333), (18, 8384), (26, 8456), (44, 8621), (54, 8672), (55, 8693), (57, 8705), (61, 8729), (62, 8741), (63, 8753), (65, 8777), (75, 8882), (76, 8900), (82, 9011), (83, 9032), (87, 9065), (90, 9083), (91, 9095), (92, 9107), (97, 9176), (103, 9236),

Gene: Reindeer_14 Start: 7753, Stop: 8904, Start Num: 2

Candidate Starts for Reindeer_14:

(Start: 2 @7753 has 22 MA's), (21, 7927), (23, 7948), (27, 7987), (28, 8002), (33, 8041), (34, 8047), (36, 8056), (38, 8098), (40, 8119), (43, 8155), (52, 8215), (53, 8221), (57, 8257), (61, 8281), (65, 8329), (68, 8359), (69, 8362), (74, 8431), (76, 8452), (80, 8554), (82, 8584), (86, 8617),

Gene: Rey_20 Start: 8671, Stop: 9846, Start Num: 2

Candidate Starts for Rey_20:

(Start: 2 @8671 has 22 MA's), (8, 8734), (11, 8773), (20, 8839), (27, 8905), (31, 8953), (33, 8959), (36, 8974), (44, 9082), (45, 9091), (50, 9142), (54, 9157), (57, 9190), (61, 9214), (65, 9262), (69, 9295), (71, 9313), (81, 9508), (86, 9550),

Gene: RoseMarie_16 Start: 8126, Stop: 9286, Start Num: 2

Candidate Starts for RoseMarie_16:

(Start: 2 @8126 has 22 MA's), (21, 8300), (23, 8321), (28, 8375), (33, 8414), (34, 8420), (36, 8429), (38, 8471), (40, 8492), (43, 8528), (44, 8537), (46, 8552), (52, 8597), (57, 8639), (61, 8663), (65, 8711), (68, 8741), (74, 8813), (76, 8834), (81, 8957), (86, 8999), (88, 9035),

Gene: Sephiroth_15 Start: 8089, Stop: 9099, Start Num: 7

Candidate Starts for Sephiroth_15:

(Start: 7 @8089 has 3 MA's), (9, 8107), (10, 8116), (11, 8131), (18, 8188), (26, 8260), (32, 8314), (53, 8464), (57, 8500), (61, 8524), (65, 8572), (71, 8623), (72, 8626), (74, 8674), (78, 8737), (79, 8755), (84, 8839), (87, 8869), (91, 8899), (95, 8947), (98, 8995), (100, 9010), (101, 9016),

Gene: Skinny_17 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for Skinny_17:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: SlimJimmy_15 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for SlimJimmy_15:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: Syleon_15 Start: 8011, Stop: 9021, Start Num: 7

Candidate Starts for Syleon_15:

(Start: 7 @8011 has 3 MA's), (9, 8029), (10, 8038), (11, 8053), (18, 8110), (26, 8182), (32, 8236), (53, 8386), (57, 8422), (61, 8446), (65, 8494), (71, 8545), (72, 8548), (74, 8596), (78, 8659), (79, 8677), (84, 8761), (87, 8791), (91, 8821), (95, 8869), (98, 8917), (100, 8932), (101, 8938),

Gene: TpudiCK_17 Start: 7881, Stop: 9041, Start Num: 2

Candidate Starts for TpudiCK_17:

(Start: 2 @7881 has 22 MA's), (13, 7989), (21, 8055), (23, 8076), (28, 8130), (33, 8169), (36, 8184), (38, 8226), (40, 8247), (43, 8283), (44, 8292), (55, 8382), (56, 8391), (57, 8394), (61, 8418), (65, 8466), (72, 8520), (73, 8535), (76, 8589), (80, 8691), (86, 8754),

Gene: Trax_14 Start: 7752, Stop: 8771, Start Num: 5

Candidate Starts for Trax_14:

(Start: 5 @7752 has 3 MA's), (12, 7821), (18, 7875), (24, 7926), (36, 8019), (54, 8166), (55, 8187), (57, 8199), (61, 8223), (62, 8235), (65, 8271), (67, 8295), (74, 8373), (75, 8376), (80, 8481), (82, 8511), (83, 8532), (90, 8583), (91, 8595), (103, 8718),

Gene: TyDawg_16 Start: 7882, Stop: 9042, Start Num: 2

Candidate Starts for TyDawg_16:

(Start: 2 @7882 has 22 MA's), (13, 7990), (21, 8056), (23, 8077), (28, 8131), (33, 8170), (36, 8185), (38, 8227), (40, 8248), (43, 8284), (44, 8293), (55, 8383), (56, 8392), (57, 8395), (61, 8419), (65, 8467), (72, 8521), (73, 8536), (76, 8590), (80, 8692), (86, 8755),

Gene: Wildcat_28 Start: 11158, Stop: 12192, Start Num: 3

Candidate Starts for Wildcat_28:

(Start: 3 @11158 has 5 MA's), (13, 11248), (15, 11263), (17, 11290), (33, 11428), (37, 11461), (49, 11539), (53, 11560), (54, 11563), (57, 11596), (58, 11602), (60, 11620), (61, 11623), (70, 11710), (77, 11815), (84, 11914), (86, 11923), (87, 11944), (93, 11989), (95, 12025), (99, 12076), (102, 12097), (104, 12118), (106, 12142), (107, 12154),