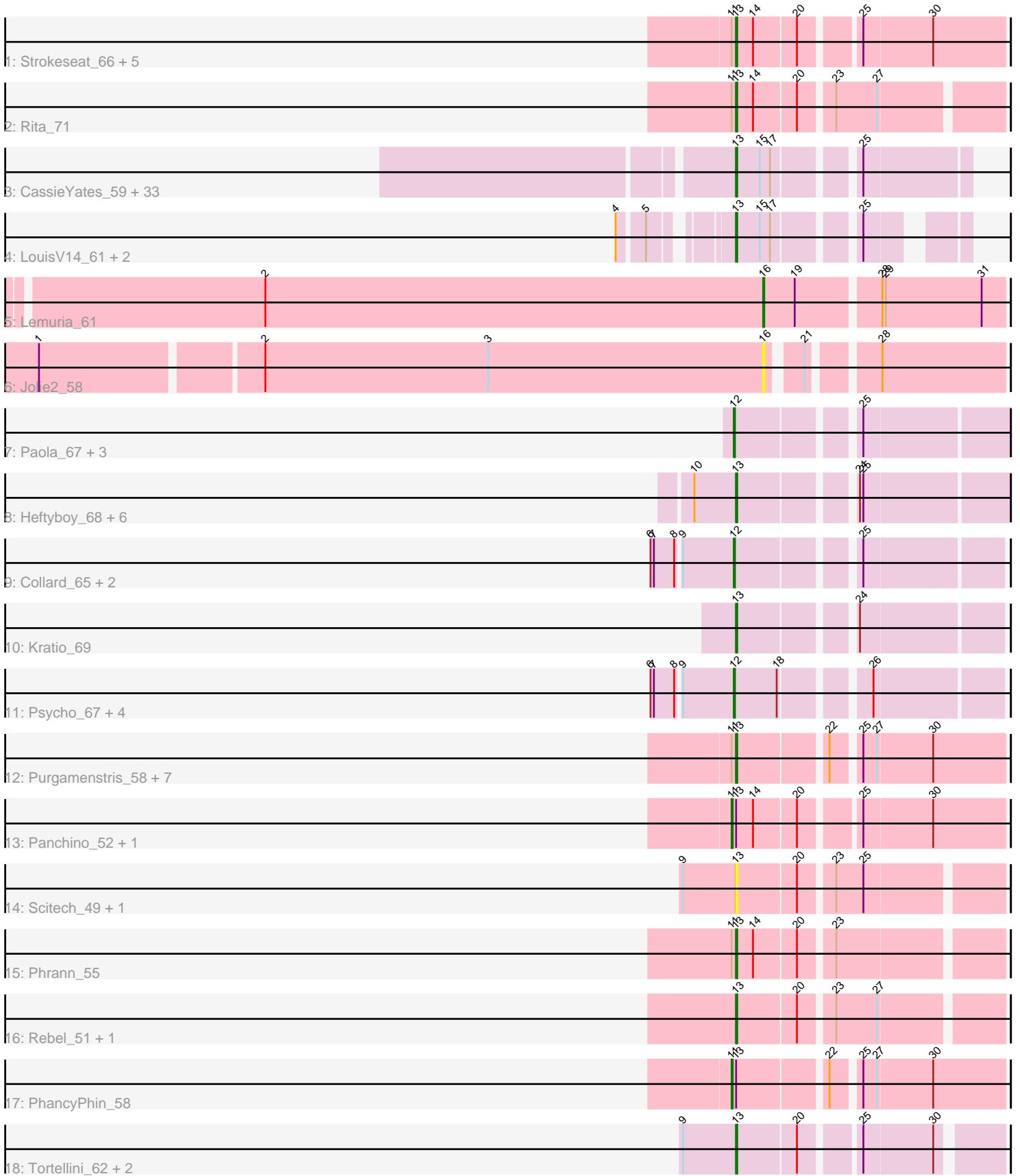


Pham 157789



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 157789 Report

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

Pham number 157789 has 85 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Strokeseat_66, Tapioca_55, Mask_73, Mandlovu_66, Andies_51, Sejanus_72
- Track 2 : Rita_71
- Track 3 : CassieYates_59, Periodt_59, Darionha_59, Crespo_58, JorRay_60, Frosty24_57, ShaboiShabazz_58, Coleslaw_58, CLED96_58, Jonghyun_57, Halo_60, GoldenAsh_57, Cherrybomb426_58, Aroostook_59, Angel_57, Marmie_59, Chance64_59, Camri_58, Plagueis_59, BQuat_58, Hotshotbaby7_59, ECartman_56, Schiebel_57, Gideon_59, Jolene_59, TomBrady_59, Remy19_59, Cedasite_59, Phish_58, Zombie_59, Liefie_56, Phreak_59, Hope_59, Mowgli_59
- Track 4 : LouisV14_61, OctaviousRex_58, DMoney_58
- Track 5 : Lemuria_61
- Track 6 : Jolie2_58
- Track 7 : Paola_67, Feyre_70, Guillsminger_68, Leston_67
- Track 8 : Heftyboy_68, OkiRoe_68, Thyatira_70, Gengar_67, Waterfoul_69, Miryou_72, SoSeph_68
- Track 9 : Collard_65, Agent47_65, InvictusManeo_65
- Track 10 : Kratio_69
- Track 11 : Psycho_67, Edugator_66, Larva_68, Dadosky_69, AlleyCat_69
- Track 12 : Purgamenstris_58, ShrimpFriedEgg_58, Jamie19_52, Nenae_58, BabeRuth_59, Redi_58, SpongeBob_52, Raymond7_52
- Track 13 : Panchino_52, Hlubikazi_66
- Track 14 : Scitech_49, MulchSalad_69
- Track 15 : Phrann_55
- Track 16 : Rebel_51, Kevin1_57
- Track 17 : PhancyPhin_58
- Track 18 : Tortellini_62, Bosection6_55, Charlie_55

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

The start number called the most often in the published annotations is 13, it was called in 63 of the 78 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Andies_51, Angel_57, Aroostook_59, BQuat_58, BabeRuth_59, Bosection6_55, CLED96_58, Camri_58, CassieYates_59, Cedasite_59, Chance64_59, Charlie_55, Cherrybomb426_58, Coleslaw_58, Crespo_58, DMoney_58, Darionha_59, ECartman_56, Frosty24_57, Gengar_67, Gideon_59, GoldenAsh_57, Halo_60, Heftyboy_68, Hope_59, Hotshotbaby7_59, Jamie19_52, Jolene_59, Jonghyun_57, JorRay_60, Kevin1_57, Kratio_69, Liefie_56, LouisV14_61, Mandlovu_66, Marmie_59, Mask_73, Miryou_72, Mowgli_59, MulchSalad_69, Nenae_58, OctaviousRex_58, OkiRoe_68, Periodt_59, Phish_58, Phrann_55, Phreak_59, Plagueis_59, Purgamenstris_58, Raymond7_52, Rebel_51, Redi_58, Remy19_59, Rita_71, Schiebel_57, Scitech_49, Sejanus_72, ShaboiShabazz_58, ShrimpFriedEgg_58, SoSeph_68, SpongeBob_52, Strokeseat_66, Tapioca_55, Thyatira_70, TomBrady_59, Tortellini_62, Waterfoul_69, Zombie_59,

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

- Hlubikazi_66, Panchino_52, PhancyPhin_58,

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

- Agent47_65, AlleyCat_69, Collard_65, Dadosky_69, Edugator_66, Feyre_70, Guillsminger_68, InvictusManeo_65, Jolie2_58, Larva_68, Lemuria_61, Leston_67, Paola_67, Psycho_67,

Summary by start number:

Start 11:

- Found in 19 of 85 (22.4%) of genes in pham
- Manual Annotations of this start: 3 of 78
- Called 15.8% of time when present
- Phage (with cluster) where this start called: Hlubikazi_66 (F1), Panchino_52 (N), PhancyPhin_58 (N),

Start 12:

- Found in 12 of 85 (14.1%) of genes in pham
- Manual Annotations of this start: 11 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agent47_65 (K5), AlleyCat_69 (K5), Collard_65 (K5), Dadosky_69 (K5), Edugator_66 (K5), Feyre_70 (K5), Guillsminger_68 (K5), InvictusManeo_65 (K5), Larva_68 (K5), Leston_67 (K5), Paola_67 (K5), Psycho_67 (K5),

Start 13:

- Found in 71 of 85 (83.5%) of genes in pham
- Manual Annotations of this start: 63 of 78
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Andies_51 (N), Angel_57 (G1), Aroostook_59 (G1), BQuat_58 (G1), BabeRuth_59 (N), Bosection6_55 (N), CLED96_58 (G1), Camri_58 (G1), CassieYates_59 (G1), Cedasite_59 (G1), Chance64_59 (G1), Charlie_55 (N), Cherrybomb426_58 (G1), Coleslaw_58 (G1), Crespo_58 (G1), DMoney_58 (G1), Darionha_59 (G1), ECartman_56 (G1), Frosty24_57 (G1), Gengar_67 (K5), Gideon_59 (G1), GoldenAsh_57 (G1), Halo_60 (G1), Heftyboy_68 (K5), Hope_59 (G1), Hotshotbaby7_59 (G1), Jamie19_52 (N), Jolene_59 (G1), Jonghyun_57 (G1), JorRay_60 (G1), Kevin1_57 (N), Kratio_69 (K5), Liefie_56 (G1), LouisV14_61 (G1), Mandlovu_66 (F1), Marmie_59 (G1), Mask_73 (AD), Miryou_72 (K5), Mowgli_59 (G1), MulchSalad_69 (F), Nenae_58 (N),

OctaviousRex_58 (G1), OkiRoe_68 (K5), Periodt_59 (G1), Phish_58 (G1), Phrann_55 (N), Phreak_59 (G1), Plagueis_59 (G1), Purgamenstris_58 (N), Raymond7_52 (N), Rebel_51 (N), Redi_58 (N), Remy19_59 (G1), Rita_71 (F1), Schiebel_57 (G1), Scitech_49 (N), Sejanus_72 (AD), ShaboiShabazz_58 (G1), ShrimpFriedEgg_58 (N), SoSeph_68 (K5), SpongeBob_52 (N), Strokeseat_66 (F1), Tapioca_55 (N), Thyatira_70 (K5), TomBrady_59 (G1), Tortellini_62 (P2), Waterfoul_69 (K5), Zombie_59 (G1),

Start 16:

- Found in 2 of 85 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jolie2_58 (G4), Lemuria_61 (G4),

Summary by clusters:

There are 8 clusters represented in this pham: P2, F1, G4, AD, G1, F, N, K5,

Info for manual annotations of cluster AD:

- Start number 13 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster F1:

- Start number 11 was manually annotated 1 time for cluster F1.
- Start number 13 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster G1:

- Start number 13 was manually annotated 36 times for cluster G1.

Info for manual annotations of cluster G4:

- Start number 16 was manually annotated 1 time for cluster G4.

Info for manual annotations of cluster K5:

- Start number 12 was manually annotated 11 times for cluster K5.
- Start number 13 was manually annotated 7 times for cluster K5.

Info for manual annotations of cluster N:

- Start number 11 was manually annotated 2 times for cluster N.
- Start number 13 was manually annotated 14 times for cluster N.

Info for manual annotations of cluster P2:

- Start number 13 was manually annotated 1 time for cluster P2.

Gene Information:

Gene: Agent47_65 Start: 47142, Stop: 47351, Start Num: 12

Candidate Starts for Agent47_65:

(6, 47073), (7, 47076), (8, 47094), (9, 47097), (Start: 12 @47142 has 11 MA's), (25, 47235),

Gene: AlleyCat_69 Start: 47473, Stop: 47682, Start Num: 12

Candidate Starts for AlleyCat_69:

(6, 47404), (7, 47407), (8, 47425), (9, 47428), (Start: 12 @47473 has 11 MA's), (18, 47509), (26, 47575),

Gene: Andies_51 Start: 35388, Stop: 35606, Start Num: 13

Candidate Starts for Andies_51:

(Start: 11 @35385 has 3 MA's), (Start: 13 @35388 has 63 MA's), (14, 35403), (20, 35439), (25, 35484), (30, 35544),

Gene: Angel_57 Start: 39751, Stop: 39933, Start Num: 13

Candidate Starts for Angel_57:

(Start: 13 @39751 has 63 MA's), (15, 39772), (17, 39781), (25, 39844),

Gene: Aroostook_59 Start: 40213, Stop: 40395, Start Num: 13

Candidate Starts for Aroostook_59:

(Start: 13 @40213 has 63 MA's), (15, 40234), (17, 40243), (25, 40306),

Gene: BQuat_58 Start: 40203, Stop: 40385, Start Num: 13

Candidate Starts for BQuat_58:

(Start: 13 @40203 has 63 MA's), (15, 40224), (17, 40233), (25, 40296),

Gene: BabeRuth_59 Start: 37109, Stop: 37324, Start Num: 13

Candidate Starts for BabeRuth_59:

(Start: 11 @37106 has 3 MA's), (Start: 13 @37109 has 63 MA's), (22, 37181), (25, 37202), (27, 37214), (30, 37262),

Gene: Bosection6_55 Start: 35094, Stop: 35312, Start Num: 13

Candidate Starts for Bosection6_55:

(9, 35049), (Start: 13 @35094 has 63 MA's), (20, 35145), (25, 35190), (30, 35250),

Gene: CLED96_58 Start: 39766, Stop: 39948, Start Num: 13

Candidate Starts for CLED96_58:

(Start: 13 @39766 has 63 MA's), (15, 39787), (17, 39796), (25, 39859),

Gene: Camri_58 Start: 39766, Stop: 39948, Start Num: 13

Candidate Starts for Camri_58:

(Start: 13 @39766 has 63 MA's), (15, 39787), (17, 39796), (25, 39859),

Gene: CassieYates_59 Start: 40211, Stop: 40393, Start Num: 13

Candidate Starts for CassieYates_59:

(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Cedasite_59 Start: 40211, Stop: 40393, Start Num: 13

Candidate Starts for Cedasite_59:

(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Chance64_59 Start: 40213, Stop: 40395, Start Num: 13

Candidate Starts for Chance64_59:

(Start: 13 @40213 has 63 MA's), (15, 40234), (17, 40243), (25, 40306),

Gene: Charlie_55 Start: 34718, Stop: 34936, Start Num: 13

Candidate Starts for Charlie_55:

(9, 34673), (Start: 13 @34718 has 63 MA's), (20, 34769), (25, 34814), (30, 34874),

Gene: Cherrybomb426_58 Start: 39766, Stop: 39948, Start Num: 13
Candidate Starts for Cherrybomb426_58:
(Start: 13 @39766 has 63 MA's), (15, 39787), (17, 39796), (25, 39859),

Gene: Coleslaw_58 Start: 40203, Stop: 40385, Start Num: 13
Candidate Starts for Coleslaw_58:
(Start: 13 @40203 has 63 MA's), (15, 40224), (17, 40233), (25, 40296),

Gene: Collard_65 Start: 47103, Stop: 47312, Start Num: 12
Candidate Starts for Collard_65:
(6, 47034), (7, 47037), (8, 47055), (9, 47058), (Start: 12 @47103 has 11 MA's), (25, 47196),

Gene: Crespo_58 Start: 40212, Stop: 40394, Start Num: 13
Candidate Starts for Crespo_58:
(Start: 13 @40212 has 63 MA's), (15, 40233), (17, 40242), (25, 40305),

Gene: DMoney_58 Start: 40211, Stop: 40372, Start Num: 13
Candidate Starts for DMoney_58:
(4, 40136), (5, 40157), (Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Dadosky_69 Start: 47475, Stop: 47684, Start Num: 12
Candidate Starts for Dadosky_69:
(6, 47406), (7, 47409), (8, 47427), (9, 47430), (Start: 12 @47475 has 11 MA's), (18, 47511), (26, 47577),

Gene: Darionha_59 Start: 40211, Stop: 40393, Start Num: 13
Candidate Starts for Darionha_59:
(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: ECartman_56 Start: 40211, Stop: 40393, Start Num: 13
Candidate Starts for ECartman_56:
(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Edugator_66 Start: 48893, Stop: 49102, Start Num: 12
Candidate Starts for Edugator_66:
(6, 48824), (7, 48827), (8, 48845), (9, 48848), (Start: 12 @48893 has 11 MA's), (18, 48929), (26, 48995),

Gene: Feyre_70 Start: 50882, Stop: 51097, Start Num: 12
Candidate Starts for Feyre_70:
(Start: 12 @50882 has 11 MA's), (25, 50975),

Gene: Frosty24_57 Start: 39766, Stop: 39948, Start Num: 13
Candidate Starts for Frosty24_57:
(Start: 13 @39766 has 63 MA's), (15, 39787), (17, 39796), (25, 39859),

Gene: Gengar_67 Start: 48864, Stop: 49079, Start Num: 13
Candidate Starts for Gengar_67:
(10, 48828), (Start: 13 @48864 has 63 MA's), (24, 48954), (25, 48957),

Gene: Gideon_59 Start: 40213, Stop: 40395, Start Num: 13
Candidate Starts for Gideon_59:
(Start: 13 @40213 has 63 MA's), (15, 40234), (17, 40243), (25, 40306),

Gene: GoldenAsh_57 Start: 39751, Stop: 39933, Start Num: 13
Candidate Starts for GoldenAsh_57:
(Start: 13 @39751 has 63 MA's), (15, 39772), (17, 39781), (25, 39844),

Gene: Guillsminger_68 Start: 48811, Stop: 49026, Start Num: 12
Candidate Starts for Guillsminger_68:
(Start: 12 @48811 has 11 MA's), (25, 48904),

Gene: Halo_60 Start: 40759, Stop: 40941, Start Num: 13
Candidate Starts for Halo_60:
(Start: 13 @40759 has 63 MA's), (15, 40780), (17, 40789), (25, 40852),

Gene: Heftyboy_68 Start: 49173, Stop: 49388, Start Num: 13
Candidate Starts for Heftyboy_68:
(10, 49137), (Start: 13 @49173 has 63 MA's), (24, 49263), (25, 49266),

Gene: Hlubikazi_66 Start: 41223, Stop: 41444, Start Num: 11
Candidate Starts for Hlubikazi_66:
(Start: 11 @41223 has 3 MA's), (Start: 13 @41226 has 63 MA's), (14, 41241), (20, 41277), (25, 41322), (30, 41382),

Gene: Hope_59 Start: 40211, Stop: 40393, Start Num: 13
Candidate Starts for Hope_59:
(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Hotshotbaby7_59 Start: 40213, Stop: 40395, Start Num: 13
Candidate Starts for Hotshotbaby7_59:
(Start: 13 @40213 has 63 MA's), (15, 40234), (17, 40243), (25, 40306),

Gene: InvictusManeo_65 Start: 47146, Stop: 47355, Start Num: 12
Candidate Starts for InvictusManeo_65:
(6, 47077), (7, 47080), (8, 47098), (9, 47101), (Start: 12 @47146 has 11 MA's), (25, 47239),

Gene: Jamie19_52 Start: 35400, Stop: 35615, Start Num: 13
Candidate Starts for Jamie19_52:
(Start: 11 @35397 has 3 MA's), (Start: 13 @35400 has 63 MA's), (22, 35472), (25, 35493), (27, 35505), (30, 35553),

Gene: Jolene_59 Start: 40615, Stop: 40797, Start Num: 13
Candidate Starts for Jolene_59:
(Start: 13 @40615 has 63 MA's), (15, 40636), (17, 40645), (25, 40708),

Gene: Jolie2_58 Start: 41270, Stop: 41452, Start Num: 16
Candidate Starts for Jolie2_58:
(1, 40643), (2, 40829), (3, 41027), (Start: 16 @41270 has 1 MA's), (21, 41294), (28, 41345),

Gene: Jonghyun_57 Start: 40214, Stop: 40396, Start Num: 13
Candidate Starts for Jonghyun_57:
(Start: 13 @40214 has 63 MA's), (15, 40235), (17, 40244), (25, 40307),

Gene: JorRay_60 Start: 40211, Stop: 40393, Start Num: 13
Candidate Starts for JorRay_60:

(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Kevin1_57 Start: 36241, Stop: 36456, Start Num: 13

Candidate Starts for Kevin1_57:

(Start: 13 @36241 has 63 MA's), (20, 36292), (23, 36319), (27, 36355),

Gene: Kratio_69 Start: 48265, Stop: 48474, Start Num: 13

Candidate Starts for Kratio_69:

(Start: 13 @48265 has 63 MA's), (24, 48355),

Gene: Larva_68 Start: 48347, Stop: 48556, Start Num: 12

Candidate Starts for Larva_68:

(6, 48278), (7, 48281), (8, 48299), (9, 48302), (Start: 12 @48347 has 11 MA's), (18, 48383), (26, 48449),

Gene: Lemuria_61 Start: 42910, Stop: 43113, Start Num: 16

Candidate Starts for Lemuria_61:

(2, 42469), (Start: 16 @42910 has 1 MA's), (19, 42937), (28, 43006), (29, 43009), (31, 43093),

Gene: Leston_67 Start: 48928, Stop: 49143, Start Num: 12

Candidate Starts for Leston_67:

(Start: 12 @48928 has 11 MA's), (25, 49021),

Gene: Liefie_56 Start: 39850, Stop: 40032, Start Num: 13

Candidate Starts for Liefie_56:

(Start: 13 @39850 has 63 MA's), (15, 39871), (17, 39880), (25, 39943),

Gene: LouisV14_61 Start: 42476, Stop: 42637, Start Num: 13

Candidate Starts for LouisV14_61:

(4, 42401), (5, 42422), (Start: 13 @42476 has 63 MA's), (15, 42497), (17, 42506), (25, 42569),

Gene: Mandlovu_66 Start: 41168, Stop: 41386, Start Num: 13

Candidate Starts for Mandlovu_66:

(Start: 11 @41165 has 3 MA's), (Start: 13 @41168 has 63 MA's), (14, 41183), (20, 41219), (25, 41264), (30, 41324),

Gene: Marmie_59 Start: 40212, Stop: 40394, Start Num: 13

Candidate Starts for Marmie_59:

(Start: 13 @40212 has 63 MA's), (15, 40233), (17, 40242), (25, 40305),

Gene: Mask_73 Start: 55063, Stop: 55281, Start Num: 13

Candidate Starts for Mask_73:

(Start: 11 @55060 has 3 MA's), (Start: 13 @55063 has 63 MA's), (14, 55078), (20, 55114), (25, 55159), (30, 55219),

Gene: Miryou_72 Start: 51549, Stop: 51764, Start Num: 13

Candidate Starts for Miryou_72:

(10, 51513), (Start: 13 @51549 has 63 MA's), (24, 51639), (25, 51642),

Gene: Mowgli_59 Start: 40212, Stop: 40394, Start Num: 13

Candidate Starts for Mowgli_59:

(Start: 13 @40212 has 63 MA's), (15, 40233), (17, 40242), (25, 40305),

Gene: MulchSalad_69 Start: 41471, Stop: 41686, Start Num: 13
Candidate Starts for MulchSalad_69:
(9, 41426), (Start: 13 @41471 has 63 MA's), (20, 41522), (23, 41549), (25, 41573),

Gene: Nenae_58 Start: 37111, Stop: 37326, Start Num: 13
Candidate Starts for Nenae_58:
(Start: 11 @37108 has 3 MA's), (Start: 13 @37111 has 63 MA's), (22, 37183), (25, 37204), (27, 37216), (30, 37264),

Gene: OctaviousRex_58 Start: 40211, Stop: 40372, Start Num: 13
Candidate Starts for OctaviousRex_58:
(4, 40136), (5, 40157), (Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: OkiRoe_68 Start: 49233, Stop: 49448, Start Num: 13
Candidate Starts for OkiRoe_68:
(10, 49197), (Start: 13 @49233 has 63 MA's), (24, 49323), (25, 49326),

Gene: Panchino_52 Start: 36826, Stop: 37047, Start Num: 11
Candidate Starts for Panchino_52:
(Start: 11 @36826 has 3 MA's), (Start: 13 @36829 has 63 MA's), (14, 36844), (20, 36880), (25, 36925), (30, 36985),

Gene: Paola_67 Start: 48811, Stop: 49026, Start Num: 12
Candidate Starts for Paola_67:
(Start: 12 @48811 has 11 MA's), (25, 48904),

Gene: Periodt_59 Start: 40604, Stop: 40786, Start Num: 13
Candidate Starts for Periodt_59:
(Start: 13 @40604 has 63 MA's), (15, 40625), (17, 40634), (25, 40697),

Gene: PhancyPhin_58 Start: 37102, Stop: 37320, Start Num: 11
Candidate Starts for PhancyPhin_58:
(Start: 11 @37102 has 3 MA's), (Start: 13 @37105 has 63 MA's), (22, 37177), (25, 37198), (27, 37210), (30, 37258),

Gene: Phish_58 Start: 40211, Stop: 40393, Start Num: 13
Candidate Starts for Phish_58:
(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Phrann_55 Start: 37388, Stop: 37603, Start Num: 13
Candidate Starts for Phrann_55:
(Start: 11 @37385 has 3 MA's), (Start: 13 @37388 has 63 MA's), (14, 37403), (20, 37439), (23, 37466),

Gene: Phreak_59 Start: 40211, Stop: 40393, Start Num: 13
Candidate Starts for Phreak_59:
(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Plagueis_59 Start: 40032, Stop: 40214, Start Num: 13
Candidate Starts for Plagueis_59:
(Start: 13 @40032 has 63 MA's), (15, 40053), (17, 40062), (25, 40125),

Gene: Psycho_67 Start: 47472, Stop: 47681, Start Num: 12

Candidate Starts for Psycho_67:

(6, 47403), (7, 47406), (8, 47424), (9, 47427), (Start: 12 @47472 has 11 MA's), (18, 47508), (26, 47574),

Gene: Purgamenstris_58 Start: 37109, Stop: 37324, Start Num: 13

Candidate Starts for Purgamenstris_58:

(Start: 11 @37106 has 3 MA's), (Start: 13 @37109 has 63 MA's), (22, 37181), (25, 37202), (27, 37214), (30, 37262),

Gene: Raymond7_52 Start: 36897, Stop: 37112, Start Num: 13

Candidate Starts for Raymond7_52:

(Start: 11 @36894 has 3 MA's), (Start: 13 @36897 has 63 MA's), (22, 36969), (25, 36990), (27, 37002), (30, 37050),

Gene: Rebel_51 Start: 34294, Stop: 34509, Start Num: 13

Candidate Starts for Rebel_51:

(Start: 13 @34294 has 63 MA's), (20, 34345), (23, 34372), (27, 34408),

Gene: Redi_58 Start: 37108, Stop: 37323, Start Num: 13

Candidate Starts for Redi_58:

(Start: 11 @37105 has 3 MA's), (Start: 13 @37108 has 63 MA's), (22, 37180), (25, 37201), (27, 37213), (30, 37261),

Gene: Remy19_59 Start: 40211, Stop: 40393, Start Num: 13

Candidate Starts for Remy19_59:

(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: Rita_71 Start: 42011, Stop: 42226, Start Num: 13

Candidate Starts for Rita_71:

(Start: 11 @42008 has 3 MA's), (Start: 13 @42011 has 63 MA's), (14, 42026), (20, 42062), (23, 42089), (27, 42125),

Gene: Schiebel_57 Start: 39751, Stop: 39933, Start Num: 13

Candidate Starts for Schiebel_57:

(Start: 13 @39751 has 63 MA's), (15, 39772), (17, 39781), (25, 39844),

Gene: Scitech_49 Start: 33551, Stop: 33766, Start Num: 13

Candidate Starts for Scitech_49:

(9, 33506), (Start: 13 @33551 has 63 MA's), (20, 33602), (23, 33629), (25, 33653),

Gene: Sejanus_72 Start: 53524, Stop: 53742, Start Num: 13

Candidate Starts for Sejanus_72:

(Start: 11 @53521 has 3 MA's), (Start: 13 @53524 has 63 MA's), (14, 53539), (20, 53575), (25, 53620), (30, 53680),

Gene: ShaboiShabazz_58 Start: 40211, Stop: 40393, Start Num: 13

Candidate Starts for ShaboiShabazz_58:

(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),

Gene: ShrimpFriedEgg_58 Start: 37108, Stop: 37323, Start Num: 13

Candidate Starts for ShrimpFriedEgg_58:

(Start: 11 @37105 has 3 MA's), (Start: 13 @37108 has 63 MA's), (22, 37180), (25, 37201), (27, 37213), (30, 37261),

Gene: SoSeph_68 Start: 49173, Stop: 49388, Start Num: 13
Candidate Starts for SoSeph_68:
(10, 49137), (Start: 13 @49173 has 63 MA's), (24, 49263), (25, 49266),

Gene: SpongeBob_52 Start: 35400, Stop: 35615, Start Num: 13
Candidate Starts for SpongeBob_52:
(Start: 11 @35397 has 3 MA's), (Start: 13 @35400 has 63 MA's), (22, 35472), (25, 35493), (27, 35505), (30, 35553),

Gene: Strokeseat_66 Start: 41225, Stop: 41443, Start Num: 13
Candidate Starts for Strokeseat_66:
(Start: 11 @41222 has 3 MA's), (Start: 13 @41225 has 63 MA's), (14, 41240), (20, 41276), (25, 41321), (30, 41381),

Gene: Tapioca_55 Start: 35827, Stop: 36045, Start Num: 13
Candidate Starts for Tapioca_55:
(Start: 11 @35824 has 3 MA's), (Start: 13 @35827 has 63 MA's), (14, 35842), (20, 35878), (25, 35923), (30, 35983),

Gene: Thyatira_70 Start: 51165, Stop: 51380, Start Num: 13
Candidate Starts for Thyatira_70:
(10, 51129), (Start: 13 @51165 has 63 MA's), (24, 51255), (25, 51258),

Gene: TomBrady_59 Start: 40212, Stop: 40394, Start Num: 13
Candidate Starts for TomBrady_59:
(Start: 13 @40212 has 63 MA's), (15, 40233), (17, 40242), (25, 40305),

Gene: Tortellini_62 Start: 43141, Stop: 43347, Start Num: 13
Candidate Starts for Tortellini_62:
(9, 43096), (Start: 13 @43141 has 63 MA's), (20, 43192), (25, 43237), (30, 43297),

Gene: Waterfoul_69 Start: 49235, Stop: 49450, Start Num: 13
Candidate Starts for Waterfoul_69:
(10, 49199), (Start: 13 @49235 has 63 MA's), (24, 49325), (25, 49328),

Gene: Zombie_59 Start: 40211, Stop: 40393, Start Num: 13
Candidate Starts for Zombie_59:
(Start: 13 @40211 has 63 MA's), (15, 40232), (17, 40241), (25, 40304),