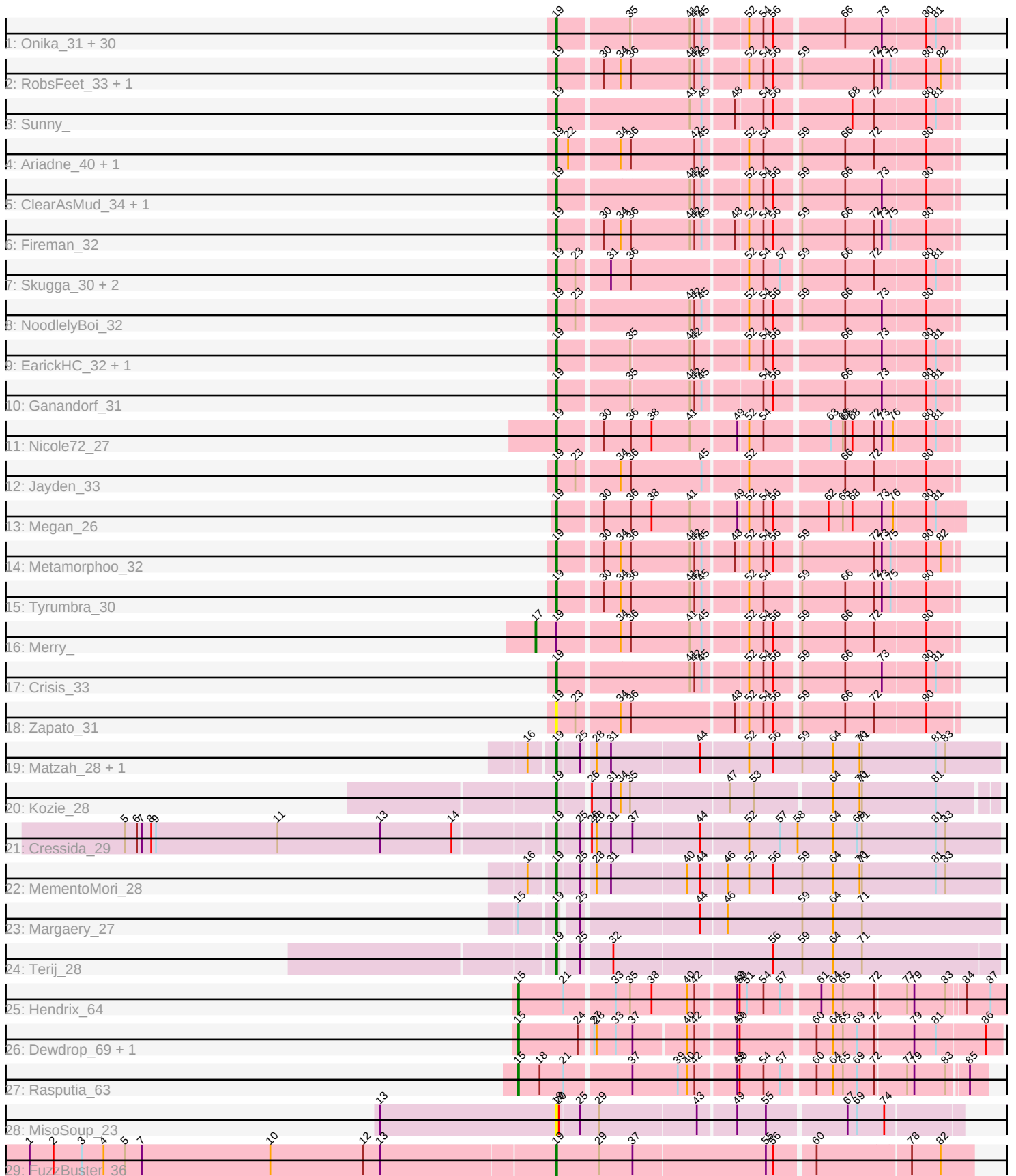


Pham 266297



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 266297 Report

This analysis was run 02/07/26 on database version 634.

Pham number 266297 has 67 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Onika_31, Piperis_32, Selwyn23_33, Yeti_32, Pulchra_33, Cranjis_33, Ramiel05_31, Glorp_33, Honeyfin_33, Antares_32, Kowalski_31, Jollipop_32, PiperSansNom_32, Phrancesco_32, Paschalis_31, Shotgun_31, Hermeonysus_31, Scumberland_33, PhedwardCullen_30, Rockwell_31, CrazyRich_31, BeagleBug_31, LittleFortune_33, Jefe_32, Busephilis_31, BrazzalePHS_31, Quhwah_35, Lucretia_32, Savannah_31, Phorgeous_31, PierreOrion_32
- Track 2 : RobsFeet_33, Shrubaron_32
- Track 3 : Sunny_
- Track 4 : Ariadne_40, Smarties_40
- Track 5 : ClearAsMud_34, SirFrank_31
- Track 6 : Fireman_32
- Track 7 : Skugga_30, Gina_33, Teamocil_33
- Track 8 : NoodlelyBoi_32
- Track 9 : EarickHC_32, KaiHaiDragon_32
- Track 10 : Ganandorf_31
- Track 11 : Nicole72_27
- Track 12 : Jayden_33
- Track 13 : Megan_26
- Track 14 : Metamorphoo_32
- Track 15 : Tyumbra_30
- Track 16 : Merry_
- Track 17 : Crisis_33
- Track 18 : Zapato_31
- Track 19 : Matzah_28, Cinna_27
- Track 20 : Kozie_28
- Track 21 : Cressida_29
- Track 22 : MementoMori_28
- Track 23 : Margaery_27
- Track 24 : Terij_28
- Track 25 : Hendrix_64
- Track 26 : Dewdrop_69, Leaf_69
- Track 27 : Rasputia_63
- Track 28 : MisoSoup_23
- Track 29 : FuzzBuster_36

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

The start number called the most often in the published annotations is 19, it was called in 54 of the 59 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_32, Ariadne_40, BeagleBug_31, BrazzalePHS_31, Busephilis_31, Cinna_27, ClearAsMud_34, Cranjis_33, CrazyRich_31, Cressida_29, Crisis_33, EarickHC_32, Fireman_32, FuzzBuster_36, Ganandorf_31, Gina_33, Glorp_33, Hermeonysus_31, Honeyfin_33, Jayden_33, Jefe_32, Jollipop_32, KaiHaiDragon_32, Kowalski_31, Kozie_28, LittleFortune_33, Lucretia_32, Margaery_27, Matzah_28, Megan_26, MementoMori_28, Metamorphoo_32, MisoSoup_23, Nicole72_27, NoodlelyBoi_32, Onika_31, Paschalis_31, PhedwardCullen_30, Phorgeous_31, Phrancesco_32, PierreOrion_32, PiperSansNom_32, Piperis_32, Pulchra_33, Quhwah_35, Ramiel05_31, RobsFeet_33, Rockwell_31, Savannah_31, Scumberland_33, Selwyn23_33, Shotgun_31, Shrubaron_32, SirFrank_31, Skugga_30, Smarties_40, Sunny_, Teamocil_33, Terij_28, Tyrumbra_30, Yeti_32, Zapato_31,

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

- Merry_

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

- Dewdrop_69, Hendrix_64, Leaf_69, Rasputia_63,

Summary by start number:

Start 15:

- Found in 5 of 67 (7.5%) of genes in pham
- Manual Annotations of this start: 4 of 59
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Dewdrop_69 (GC), Hendrix_64 (GC), Leaf_69 (GC), Rasputia_63 (GC),

Start 17:

- Found in 1 of 67 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 59
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Merry_ (EC),

Start 19:

- Found in 63 of 67 (94.0%) of genes in pham
- Manual Annotations of this start: 54 of 59
- Called 98.4% of time when present
- Phage (with cluster) where this start called: Antares_32 (EC), Ariadne_40 (EC), BeagleBug_31 (EC), BrazzalePHS_31 (EC), Busephilis_31 (EC), Cinna_27 (EI), ClearAsMud_34 (EC), Cranjis_33 (EC), CrazyRich_31 (EC), Cressida_29 (EI), Crisis_33 (EC), EarickHC_32 (EC), Fireman_32 (EC), FuzzBuster_36 (singleton), Ganandorf_31 (EC), Gina_33 (EC), Glorp_33 (EC), Hermeonysus_31 (EC), Honeyfin_33 (EC), Jayden_33 (EC), Jefe_32 (EC), Jollipop_32 (EC), KaiHaiDragon_32 (EC), Kowalski_31 (EC), Kozie_28 (EI), LittleFortune_33 (EC), Lucretia_32 (EC), Margaery_27 (EI), Matzah_28 (EI), Megan_26 (EC),

MementoMori_28 (EI), Metamorphoo_32 (EC), MisoSoup_23 (UNK), Nicole72_27 (EC), NoodlelyBoi_32 (EC), Onika_31 (EC), Paschalis_31 (EC), PhedwardCullen_30 (EC), Phorgeous_31 (EC), Phrancesco_32 (EC), PierreOrion_32 (EC), PiperSansNom_32 (EC), Piperis_32 (EC), Pulchra_33 (EC), Quhwah_35 (EC), Ramiel05_31 (EC), RobsFeet_33 (EC), Rockwell_31 (EC), Savannah_31 (EC), Scumberland_33 (EC), Selwyn23_33 (EC), Shotgun_31 (EC), Shrubaron_32 (EC), SirFrank_31 (EC), Skugga_30 (EC), Smarties_40 (EC), Sunny_ (EC), Teamocil_33 (EC), Terij_28 (EI), Tyumbra_30 (EC), Yeti_32 (EC), Zapato_31 (EC),

Summary by clusters:

There are 5 clusters represented in this pham: GC, singleton, UNK, EI, EC,

Info for manual annotations of cluster EC:

- Start number 17 was manually annotated 1 time for cluster EC.
- Start number 19 was manually annotated 46 times for cluster EC.

Info for manual annotations of cluster EI:

- Start number 19 was manually annotated 7 times for cluster EI.

Info for manual annotations of cluster GC:

- Start number 15 was manually annotated 4 times for cluster GC.

Gene Information:

Gene: Antares_32 Start: 19129, Stop: 19593, Start Num: 19

Candidate Starts for Antares_32:

(Start: 19 @19129 has 54 MA's), (35, 19210), (41, 19282), (42, 19288), (45, 19297), (52, 19348), (54, 19366), (56, 19378), (66, 19459), (73, 19504), (80, 19555), (81, 19567),

Gene: Ariadne_40 Start: 20819, Stop: 21283, Start Num: 19

Candidate Starts for Ariadne_40:

(Start: 19 @20819 has 54 MA's), (22, 20834), (34, 20888), (36, 20900), (42, 20978), (45, 20987), (52, 21038), (54, 21056), (59, 21095), (66, 21149), (72, 21185), (80, 21245),

Gene: BeagleBug_31 Start: 18910, Stop: 19374, Start Num: 19

Candidate Starts for BeagleBug_31:

(Start: 19 @18910 has 54 MA's), (35, 18991), (41, 19063), (42, 19069), (45, 19078), (52, 19129), (54, 19147), (56, 19159), (66, 19240), (73, 19285), (80, 19336), (81, 19348),

Gene: BrazzalePHS_31 Start: 18924, Stop: 19388, Start Num: 19

Candidate Starts for BrazzalePHS_31:

(Start: 19 @18924 has 54 MA's), (35, 19005), (41, 19077), (42, 19083), (45, 19092), (52, 19143), (54, 19161), (56, 19173), (66, 19254), (73, 19299), (80, 19350), (81, 19362),

Gene: Busephilis_31 Start: 18859, Stop: 19323, Start Num: 19

Candidate Starts for Busephilis_31:

(Start: 19 @18859 has 54 MA's), (35, 18940), (41, 19012), (42, 19018), (45, 19027), (52, 19078), (54, 19096), (56, 19108), (66, 19189), (73, 19234), (80, 19285), (81, 19297),

Gene: Cinna_27 Start: 18274, Stop: 18807, Start Num: 19

Candidate Starts for Cinna_27:

(16, 18247), (Start: 19 @18274 has 54 MA's), (25, 18301), (28, 18313), (31, 18331), (44, 18439), (52, 18496), (56, 18526), (59, 18562), (64, 18601), (70, 18634), (71, 18637), (81, 18730), (83, 18742),

Gene: ClearAsMud_34 Start: 19638, Stop: 20102, Start Num: 19

Candidate Starts for ClearAsMud_34:

(Start: 19 @19638 has 54 MA's), (41, 19791), (42, 19797), (45, 19806), (52, 19857), (54, 19875), (56, 19887), (59, 19914), (66, 19968), (73, 20013), (80, 20064),

Gene: Cranjis_33 Start: 19084, Stop: 19548, Start Num: 19

Candidate Starts for Cranjis_33:

(Start: 19 @19084 has 54 MA's), (35, 19165), (41, 19237), (42, 19243), (45, 19252), (52, 19303), (54, 19321), (56, 19333), (66, 19414), (73, 19459), (80, 19510), (81, 19522),

Gene: CrazyRich_31 Start: 18893, Stop: 19357, Start Num: 19

Candidate Starts for CrazyRich_31:

(Start: 19 @18893 has 54 MA's), (35, 18974), (41, 19046), (42, 19052), (45, 19061), (52, 19112), (54, 19130), (56, 19142), (66, 19223), (73, 19268), (80, 19319), (81, 19331),

Gene: Cressida_29 Start: 18333, Stop: 18866, Start Num: 19

Candidate Starts for Cressida_29:

(5, 17808), (6, 17823), (7, 17829), (8, 17841), (9, 17847), (11, 18000), (13, 18129), (14, 18219), (Start: 19 @18333 has 54 MA's), (25, 18360), (26, 18366), (28, 18372), (31, 18390), (37, 18417), (44, 18498), (52, 18555), (57, 18594), (58, 18615), (64, 18660), (69, 18690), (71, 18696), (81, 18789), (83, 18801),

Gene: Crisis_33 Start: 18878, Stop: 19342, Start Num: 19

Candidate Starts for Crisis_33:

(Start: 19 @18878 has 54 MA's), (41, 19031), (42, 19037), (45, 19046), (52, 19097), (54, 19115), (56, 19127), (59, 19154), (66, 19208), (73, 19253), (80, 19304), (81, 19316),

Gene: Dewdrop_69 Start: 38303, Stop: 38872, Start Num: 15

Candidate Starts for Dewdrop_69:

(Start: 15 @38303 has 4 MA's), (24, 38378), (27, 38390), (28, 38393), (33, 38417), (37, 38438), (40, 38501), (42, 38510), (49, 38558), (50, 38561), (60, 38648), (64, 38669), (65, 38681), (69, 38699), (72, 38720), (79, 38765), (81, 38792), (86, 38852),

Gene: EarickHC_32 Start: 18804, Stop: 19268, Start Num: 19

Candidate Starts for EarickHC_32:

(Start: 19 @18804 has 54 MA's), (35, 18885), (41, 18957), (42, 18963), (52, 19023), (54, 19041), (56, 19053), (66, 19134), (73, 19179), (80, 19230), (81, 19242),

Gene: Fireman_32 Start: 18694, Stop: 19158, Start Num: 19

Candidate Starts for Fireman_32:

(Start: 19 @18694 has 54 MA's), (30, 18742), (34, 18763), (36, 18775), (41, 18847), (42, 18853), (45, 18862), (48, 18898), (52, 18913), (54, 18931), (56, 18943), (59, 18970), (66, 19024), (72, 19060), (73, 19069), (75, 19078), (80, 19120),

Gene: FuzzBuster_36 Start: 18981, Stop: 19487, Start Num: 19

Candidate Starts for FuzzBuster_36:

(1, 18327), (2, 18357), (3, 18393), (4, 18420), (5, 18447), (7, 18468), (10, 18630), (12, 18747), (13, 18768), (Start: 19 @18981 has 54 MA's), (29, 19035), (37, 19077), (55, 19242), (56, 19251), (60, 19296), (78, 19410), (82, 19446),

Gene: Ganandorf_31 Start: 18940, Stop: 19404, Start Num: 19

Candidate Starts for Ganandorf_31:

(Start: 19 @18940 has 54 MA's), (35, 19021), (41, 19093), (42, 19099), (45, 19108), (54, 19177), (56, 19189), (66, 19270), (73, 19315), (80, 19366), (81, 19378),

Gene: Gina_33 Start: 18717, Stop: 19181, Start Num: 19

Candidate Starts for Gina_33:

(Start: 19 @18717 has 54 MA's), (23, 18738), (31, 18774), (36, 18798), (52, 18936), (54, 18954), (57, 18975), (59, 18993), (66, 19047), (72, 19083), (80, 19143), (81, 19155),

Gene: Glorp_33 Start: 18941, Stop: 19405, Start Num: 19

Candidate Starts for Glorp_33:

(Start: 19 @18941 has 54 MA's), (35, 19022), (41, 19094), (42, 19100), (45, 19109), (52, 19160), (54, 19178), (56, 19190), (66, 19271), (73, 19316), (80, 19367), (81, 19379),

Gene: Hendrix_64 Start: 37513, Stop: 38091, Start Num: 15

Candidate Starts for Hendrix_64:

(Start: 15 @37513 has 4 MA's), (21, 37570), (33, 37627), (35, 37645), (38, 37672), (40, 37717), (42, 37726), (49, 37774), (50, 37777), (51, 37786), (54, 37807), (57, 37828), (61, 37870), (64, 37885), (65, 37897), (72, 37936), (77, 37972), (79, 37981), (83, 38020), (84, 38041), (87, 38071),

Gene: Hermeonysus_31 Start: 18813, Stop: 19277, Start Num: 19

Candidate Starts for Hermeonysus_31:

(Start: 19 @18813 has 54 MA's), (35, 18894), (41, 18966), (42, 18972), (45, 18981), (52, 19032), (54, 19050), (56, 19062), (66, 19143), (73, 19188), (80, 19239), (81, 19251),

Gene: Honeyfin_33 Start: 19128, Stop: 19592, Start Num: 19

Candidate Starts for Honeyfin_33:

(Start: 19 @19128 has 54 MA's), (35, 19209), (41, 19281), (42, 19287), (45, 19296), (52, 19347), (54, 19365), (56, 19377), (66, 19458), (73, 19503), (80, 19554), (81, 19566),

Gene: Jayden_33 Start: 18864, Stop: 19328, Start Num: 19

Candidate Starts for Jayden_33:

(Start: 19 @18864 has 54 MA's), (23, 18885), (34, 18933), (36, 18945), (45, 19032), (52, 19083), (66, 19194), (72, 19230), (80, 19290),

Gene: Jefe_32 Start: 18865, Stop: 19329, Start Num: 19

Candidate Starts for Jefe_32:

(Start: 19 @18865 has 54 MA's), (35, 18946), (41, 19018), (42, 19024), (45, 19033), (52, 19084), (54, 19102), (56, 19114), (66, 19195), (73, 19240), (80, 19291), (81, 19303),

Gene: Jollipop_32 Start: 19210, Stop: 19674, Start Num: 19

Candidate Starts for Jollipop_32:

(Start: 19 @19210 has 54 MA's), (35, 19291), (41, 19363), (42, 19369), (45, 19378), (52, 19429), (54, 19447), (56, 19459), (66, 19540), (73, 19585), (80, 19636), (81, 19648),

Gene: KaiHaiDragon_32 Start: 18804, Stop: 19268, Start Num: 19

Candidate Starts for KaiHaiDragon_32:

(Start: 19 @18804 has 54 MA's), (35, 18885), (41, 18957), (42, 18963), (52, 19023), (54, 19041), (56, 19053), (66, 19134), (73, 19179), (80, 19230), (81, 19242),

Gene: Kowalski_31 Start: 18920, Stop: 19384, Start Num: 19

Candidate Starts for Kowalski_31:

(Start: 19 @18920 has 54 MA's), (35, 19001), (41, 19073), (42, 19079), (45, 19088), (52, 19139), (54, 19157), (56, 19169), (66, 19250), (73, 19295), (80, 19346), (81, 19358),

Gene: Kozie_28 Start: 18580, Stop: 19092, Start Num: 19

Candidate Starts for Kozie_28:

(Start: 19 @18580 has 54 MA's), (26, 18613), (31, 18637), (34, 18649), (35, 18661), (47, 18778), (53, 18808), (64, 18898), (70, 18931), (71, 18934), (81, 19027),

Gene: Leaf_69 Start: 38303, Stop: 38872, Start Num: 15

Candidate Starts for Leaf_69:

(Start: 15 @38303 has 4 MA's), (24, 38378), (27, 38390), (28, 38393), (33, 38417), (37, 38438), (40, 38501), (42, 38510), (49, 38558), (50, 38561), (60, 38648), (64, 38669), (65, 38681), (69, 38699), (72, 38720), (79, 38765), (81, 38792), (86, 38852),

Gene: LittleFortune_33 Start: 19170, Stop: 19634, Start Num: 19

Candidate Starts for LittleFortune_33:

(Start: 19 @19170 has 54 MA's), (35, 19251), (41, 19323), (42, 19329), (45, 19338), (52, 19389), (54, 19407), (56, 19419), (66, 19500), (73, 19545), (80, 19596), (81, 19608),

Gene: Lucretia_32 Start: 18857, Stop: 19321, Start Num: 19

Candidate Starts for Lucretia_32:

(Start: 19 @18857 has 54 MA's), (35, 18938), (41, 19010), (42, 19016), (45, 19025), (52, 19076), (54, 19094), (56, 19106), (66, 19187), (73, 19232), (80, 19283), (81, 19295),

Gene: Margaery_27 Start: 18221, Stop: 18748, Start Num: 19

Candidate Starts for Margaery_27:

(Start: 15 @18182 has 4 MA's), (Start: 19 @18221 has 54 MA's), (25, 18242), (44, 18380), (46, 18410), (59, 18503), (64, 18542), (71, 18578),

Gene: Matzah_28 Start: 18251, Stop: 18784, Start Num: 19

Candidate Starts for Matzah_28:

(16, 18224), (Start: 19 @18251 has 54 MA's), (25, 18278), (28, 18290), (31, 18308), (44, 18416), (52, 18473), (56, 18503), (59, 18539), (64, 18578), (70, 18611), (71, 18614), (81, 18707), (83, 18719),

Gene: Megan_26 Start: 20113, Stop: 20586, Start Num: 19

Candidate Starts for Megan_26:

(Start: 19 @20113 has 54 MA's), (30, 20161), (36, 20194), (38, 20218), (41, 20266), (49, 20320), (52, 20332), (54, 20350), (56, 20362), (62, 20422), (65, 20440), (68, 20452), (73, 20488), (76, 20500), (80, 20539), (81, 20551),

Gene: MementoMori_28 Start: 17980, Stop: 18513, Start Num: 19

Candidate Starts for MementoMori_28:

(16, 17953), (Start: 19 @17980 has 54 MA's), (25, 18007), (28, 18019), (31, 18037), (40, 18130), (44, 18145), (46, 18175), (52, 18202), (56, 18232), (59, 18268), (64, 18307), (70, 18340), (71, 18343), (81, 18436), (83, 18448),

Gene: Merry_ Start: 20953, Stop: 21441, Start Num: 17

Candidate Starts for Merry_:

(Start: 17 @20953 has 1 MA's), (Start: 19 @20977 has 54 MA's), (34, 21046), (36, 21058), (41, 21130), (45, 21145), (52, 21196), (54, 21214), (56, 21226), (59, 21253), (66, 21307), (72, 21343), (80, 21403),

Gene: Metamorphoo_32 Start: 18716, Stop: 19180, Start Num: 19

Candidate Starts for Metamorphoo_32:

(Start: 19 @18716 has 54 MA's), (30, 18764), (34, 18785), (36, 18797), (41, 18869), (42, 18875), (45, 18884), (48, 18920), (52, 18935), (54, 18953), (56, 18965), (59, 18992), (72, 19082), (73, 19091), (75, 19100), (80, 19142), (82, 19160),

Gene: MisoSoup_23 Start: 14884, Stop: 15366, Start Num: 19

Candidate Starts for MisoSoup_23:

(13, 14665), (Start: 19 @14884 has 54 MA's), (20, 14887), (25, 14911), (29, 14935), (43, 15055), (49, 15100), (55, 15136), (67, 15229), (69, 15241), (74, 15274),

Gene: Nicole72_27 Start: 20490, Stop: 20954, Start Num: 19

Candidate Starts for Nicole72_27:

(Start: 19 @20490 has 54 MA's), (30, 20538), (36, 20571), (38, 20595), (41, 20643), (49, 20697), (52, 20709), (54, 20727), (63, 20802), (65, 20817), (66, 20820), (68, 20829), (72, 20856), (73, 20865), (76, 20877), (80, 20916), (81, 20928),

Gene: NoodlelyBoi_32 Start: 19248, Stop: 19712, Start Num: 19

Candidate Starts for NoodlelyBoi_32:

(Start: 19 @19248 has 54 MA's), (23, 19269), (41, 19401), (42, 19407), (45, 19416), (52, 19467), (54, 19485), (56, 19497), (59, 19524), (66, 19578), (73, 19623), (80, 19674),

Gene: Onika_31 Start: 18895, Stop: 19359, Start Num: 19

Candidate Starts for Onika_31:

(Start: 19 @18895 has 54 MA's), (35, 18976), (41, 19048), (42, 19054), (45, 19063), (52, 19114), (54, 19132), (56, 19144), (66, 19225), (73, 19270), (80, 19321), (81, 19333),

Gene: Paschalis_31 Start: 18908, Stop: 19372, Start Num: 19

Candidate Starts for Paschalis_31:

(Start: 19 @18908 has 54 MA's), (35, 18989), (41, 19061), (42, 19067), (45, 19076), (52, 19127), (54, 19145), (56, 19157), (66, 19238), (73, 19283), (80, 19334), (81, 19346),

Gene: PhedwardCullen_30 Start: 18653, Stop: 19117, Start Num: 19

Candidate Starts for PhedwardCullen_30:

(Start: 19 @18653 has 54 MA's), (35, 18734), (41, 18806), (42, 18812), (45, 18821), (52, 18872), (54, 18890), (56, 18902), (66, 18983), (73, 19028), (80, 19079), (81, 19091),

Gene: Phorgeous_31 Start: 18762, Stop: 19226, Start Num: 19

Candidate Starts for Phorgeous_31:

(Start: 19 @18762 has 54 MA's), (35, 18843), (41, 18915), (42, 18921), (45, 18930), (52, 18981), (54, 18999), (56, 19011), (66, 19092), (73, 19137), (80, 19188), (81, 19200),

Gene: Phrancesco_32 Start: 19040, Stop: 19504, Start Num: 19

Candidate Starts for Phrancesco_32:

(Start: 19 @19040 has 54 MA's), (35, 19121), (41, 19193), (42, 19199), (45, 19208), (52, 19259), (54, 19277), (56, 19289), (66, 19370), (73, 19415), (80, 19466), (81, 19478),

Gene: PierreOrion_32 Start: 19063, Stop: 19527, Start Num: 19

Candidate Starts for PierreOrion_32:

(Start: 19 @19063 has 54 MA's), (35, 19144), (41, 19216), (42, 19222), (45, 19231), (52, 19282), (54, 19300), (56, 19312), (66, 19393), (73, 19438), (80, 19489), (81, 19501),

Gene: PiperSansNom_32 Start: 19215, Stop: 19679, Start Num: 19

Candidate Starts for PiperSansNom_32:

(Start: 19 @19215 has 54 MA's), (35, 19296), (41, 19368), (42, 19374), (45, 19383), (52, 19434), (54, 19452), (56, 19464), (66, 19545), (73, 19590), (80, 19641), (81, 19653),

Gene: Piperis_32 Start: 18885, Stop: 19349, Start Num: 19

Candidate Starts for Piperis_32:

(Start: 19 @18885 has 54 MA's), (35, 18966), (41, 19038), (42, 19044), (45, 19053), (52, 19104), (54, 19122), (56, 19134), (66, 19215), (73, 19260), (80, 19311), (81, 19323),

Gene: Pulchra_33 Start: 19285, Stop: 19749, Start Num: 19

Candidate Starts for Pulchra_33:

(Start: 19 @19285 has 54 MA's), (35, 19366), (41, 19438), (42, 19444), (45, 19453), (52, 19504), (54, 19522), (56, 19534), (66, 19615), (73, 19660), (80, 19711), (81, 19723),

Gene: Quhwah_35 Start: 19511, Stop: 19975, Start Num: 19

Candidate Starts for Quhwah_35:

(Start: 19 @19511 has 54 MA's), (35, 19592), (41, 19664), (42, 19670), (45, 19679), (52, 19730), (54, 19748), (56, 19760), (66, 19841), (73, 19886), (80, 19937), (81, 19949),

Gene: Ramiel05_31 Start: 18920, Stop: 19384, Start Num: 19

Candidate Starts for Ramiel05_31:

(Start: 19 @18920 has 54 MA's), (35, 19001), (41, 19073), (42, 19079), (45, 19088), (52, 19139), (54, 19157), (56, 19169), (66, 19250), (73, 19295), (80, 19346), (81, 19358),

Gene: Rasputia_63 Start: 37173, Stop: 37721, Start Num: 15

Candidate Starts for Rasputia_63:

(Start: 15 @37173 has 4 MA's), (18, 37200), (21, 37230), (37, 37308), (39, 37365), (40, 37377), (42, 37386), (49, 37434), (50, 37437), (54, 37467), (57, 37488), (60, 37524), (64, 37545), (65, 37557), (69, 37575), (72, 37596), (77, 37632), (79, 37641), (83, 37680), (85, 37701),

Gene: RobsFeet_33 Start: 18997, Stop: 19461, Start Num: 19

Candidate Starts for RobsFeet_33:

(Start: 19 @18997 has 54 MA's), (30, 19045), (34, 19066), (36, 19078), (41, 19150), (42, 19156), (45, 19165), (52, 19216), (54, 19234), (56, 19246), (59, 19273), (72, 19363), (73, 19372), (75, 19381), (80, 19423), (82, 19441),

Gene: Rockwell_31 Start: 18920, Stop: 19384, Start Num: 19

Candidate Starts for Rockwell_31:

(Start: 19 @18920 has 54 MA's), (35, 19001), (41, 19073), (42, 19079), (45, 19088), (52, 19139), (54, 19157), (56, 19169), (66, 19250), (73, 19295), (80, 19346), (81, 19358),

Gene: Savannah_31 Start: 18947, Stop: 19411, Start Num: 19

Candidate Starts for Savannah_31:

(Start: 19 @18947 has 54 MA's), (35, 19028), (41, 19100), (42, 19106), (45, 19115), (52, 19166), (54, 19184), (56, 19196), (66, 19277), (73, 19322), (80, 19373), (81, 19385),

Gene: Scumberland_33 Start: 19136, Stop: 19600, Start Num: 19

Candidate Starts for Scumberland_33:

(Start: 19 @19136 has 54 MA's), (35, 19217), (41, 19289), (42, 19295), (45, 19304), (52, 19355), (54, 19373), (56, 19385), (66, 19466), (73, 19511), (80, 19562), (81, 19574),

Gene: Selwyn23_33 Start: 19113, Stop: 19577, Start Num: 19

Candidate Starts for Selwyn23_33:

(Start: 19 @19113 has 54 MA's), (35, 19194), (41, 19266), (42, 19272), (45, 19281), (52, 19332), (54, 19350), (56, 19362), (66, 19443), (73, 19488), (80, 19539), (81, 19551),

Gene: Shotgun_31 Start: 18746, Stop: 19210, Start Num: 19

Candidate Starts for Shotgun_31:

(Start: 19 @18746 has 54 MA's), (35, 18827), (41, 18899), (42, 18905), (45, 18914), (52, 18965), (54, 18983), (56, 18995), (66, 19076), (73, 19121), (80, 19172), (81, 19184),

Gene: Shrubaron_32 Start: 18631, Stop: 19095, Start Num: 19

Candidate Starts for Shrubaron_32:

(Start: 19 @18631 has 54 MA's), (30, 18679), (34, 18700), (36, 18712), (41, 18784), (42, 18790), (45, 18799), (52, 18850), (54, 18868), (56, 18880), (59, 18907), (72, 18997), (73, 19006), (75, 19015), (80, 19057), (82, 19075),

Gene: SirFrank_31 Start: 18848, Stop: 19312, Start Num: 19

Candidate Starts for SirFrank_31:

(Start: 19 @18848 has 54 MA's), (41, 19001), (42, 19007), (45, 19016), (52, 19067), (54, 19085), (56, 19097), (59, 19124), (66, 19178), (73, 19223), (80, 19274),

Gene: Skugga_30 Start: 18735, Stop: 19199, Start Num: 19

Candidate Starts for Skugga_30:

(Start: 19 @18735 has 54 MA's), (23, 18756), (31, 18792), (36, 18816), (52, 18954), (54, 18972), (57, 18993), (59, 19011), (66, 19065), (72, 19101), (80, 19161), (81, 19173),

Gene: Smarties_40 Start: 20819, Stop: 21283, Start Num: 19

Candidate Starts for Smarties_40:

(Start: 19 @20819 has 54 MA's), (22, 20834), (34, 20888), (36, 20900), (42, 20978), (45, 20987), (52, 21038), (54, 21056), (59, 21095), (66, 21149), (72, 21185), (80, 21245),

Gene: Sunny_ Start: 20982, Stop: 21446, Start Num: 19

Candidate Starts for Sunny_:

(Start: 19 @20982 has 54 MA's), (41, 21135), (45, 21150), (48, 21186), (54, 21219), (56, 21231), (68, 21321), (72, 21348), (80, 21408), (81, 21420),

Gene: Teamocil_33 Start: 18816, Stop: 19280, Start Num: 19

Candidate Starts for Teamocil_33:

(Start: 19 @18816 has 54 MA's), (23, 18837), (31, 18873), (36, 18897), (52, 19035), (54, 19053), (57, 19074), (59, 19092), (66, 19146), (72, 19182), (80, 19242), (81, 19254),

Gene: Terij_28 Start: 18304, Stop: 18828, Start Num: 19

Candidate Starts for Terij_28:

(Start: 19 @18304 has 54 MA's), (25, 18325), (32, 18358), (56, 18550), (59, 18586), (64, 18625), (71, 18661),

Gene: Tyrumbra_30 Start: 18037, Stop: 18501, Start Num: 19

Candidate Starts for Tyrumbra_30:

(Start: 19 @18037 has 54 MA's), (30, 18085), (34, 18106), (36, 18118), (41, 18190), (42, 18196), (45, 18205), (52, 18256), (54, 18274), (59, 18313), (66, 18367), (72, 18403), (73, 18412), (75, 18421), (80, 18463),

Gene: Yeti_32 Start: 18915, Stop: 19379, Start Num: 19

Candidate Starts for Yeti_32:

(Start: 19 @18915 has 54 MA's), (35, 18996), (41, 19068), (42, 19074), (45, 19083), (52, 19134), (54, 19152), (56, 19164), (66, 19245), (73, 19290), (80, 19341), (81, 19353),

Gene: Zapato_31 Start: 18760, Stop: 19224, Start Num: 19

Candidate Starts for Zapato_31:

(Start: 19 @18760 has 54 MA's), (23, 18781), (34, 18829), (36, 18841), (48, 18964), (52, 18979), (54, 18997), (56, 19009), (59, 19036), (66, 19090), (72, 19126), (80, 19186),