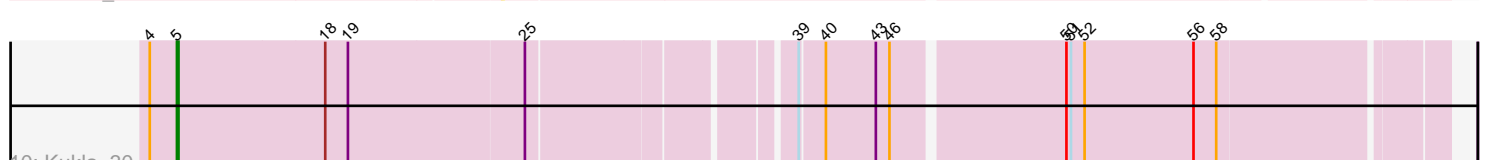
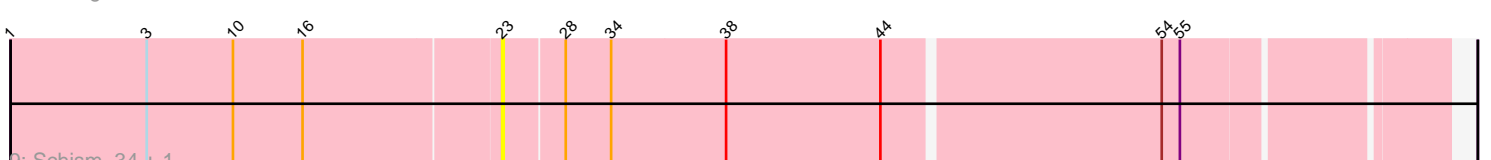
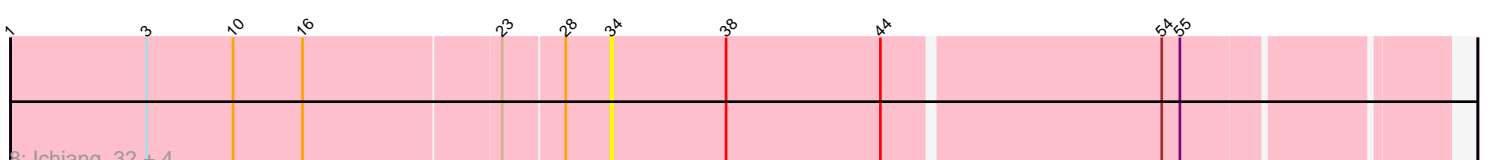
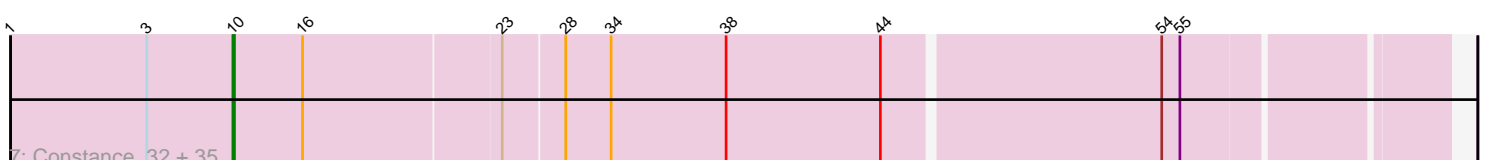
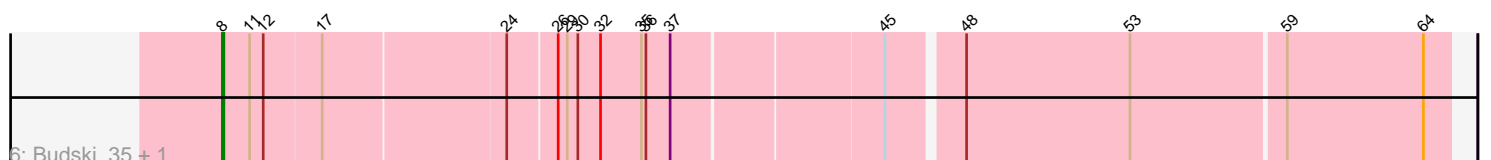
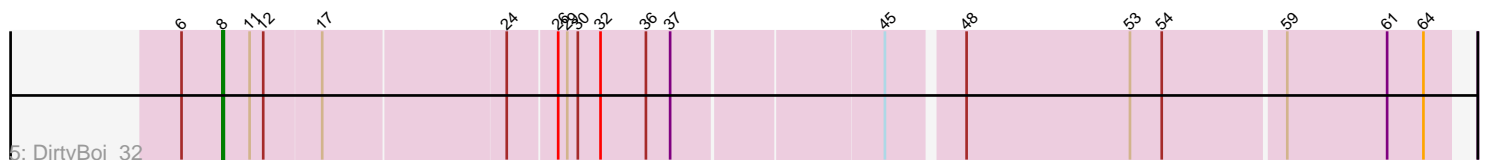
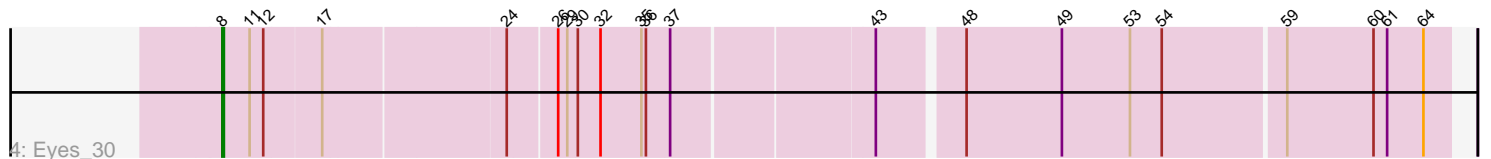
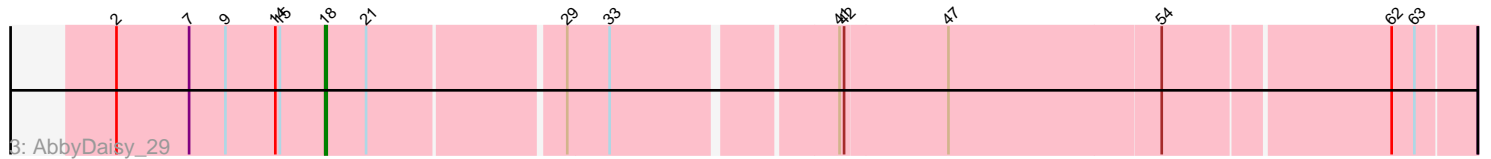
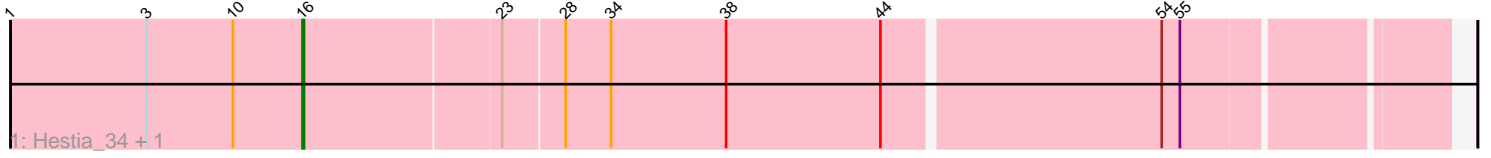


Pham 224654



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 224654 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224654 has 52 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Hestia_34, Raphaella_34
- Track 2 : Vopal_36
- Track 3 : AbbyDaisy_29
- Track 4 : Eyes_30
- Track 5 : DirtyBoi_32
- Track 6 : Budski_35, Matteo_26
- Track 7 : Constance_32, PeggyLeg03_32, RadFad_34, KayMoney_33, Halloweekend_32, Shukran_34, Bauer_30, MidnightRain_34, ThayneTheZag_34, FosterFrank_33, Ryan_34, Popper_32, GlobiWarming_33, Sakai_34, MUWow_33, BlackSpider_29, BenchScraper_34, Isolde_34, Richie_34, Zaheer_34, CookieBear_35, Gusanita_32, Nandita_34, Lawnathon_34, Judy_33, Globfish_34, Bridgette_32, Cole_32, Karkharias_32, YoungHarleezy_34, QuinnAvery_34, MaterMagnus_34, Donatella_33, BlueShadow_35, ChuckDuck_33, GoodLuckBabe_34
- Track 8 : Ichiang_32, Hillester_34, Kihatsu_35, Guinevere_34, SpicyFrank_34
- Track 9 : Schism_34, Lenoxika_34
- Track 10 : Kukla_30

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

The start number called the most often in the published annotations is 10, it was called in 21 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bauer_30, BenchScraper_34, BlackSpider_29, BlueShadow_35, Bridgette_32, ChuckDuck_33, Cole_32, Constance_32, CookieBear_35, Donatella_33, FosterFrank_33, Globfish_34, GlobiWarming_33, GoodLuckBabe_34, Gusanita_32, Halloweekend_32, Isolde_34, Judy_33, Karkharias_32, KayMoney_33, Lawnathon_34, MUWow_33, MaterMagnus_34, MidnightRain_34, Nandita_34, PeggyLeg03_32, Popper_32, QuinnAvery_34, RadFad_34, Richie_34, Ryan_34, Sakai_34, Shukran_34, ThayneTheZag_34, YoungHarleezy_34, Zaheer_34,

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

- Guinevere_34, Hestia_34, Hillester_34, Ichiang_32, Kihatsu_35, Lenoxika_34, Raphaella_34, Schism_34, SpicyFrank_34,

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

- AbbyDaisy_29, Budski_35, DirtyBoi_32, Eyes_30, Kukla_30, Matteo_26, Vopal_36,

Summary by start number:

Start 5:

- Found in 1 of 52 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kukla_30 (FJ),

Start 8:

- Found in 4 of 52 (7.7%) of genes in pham
- Manual Annotations of this start: 4 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Budski_35 (DN), DirtyBoi_32 (DB), Eyes_30 (DB), Matteo_26 (CZ2),

Start 10:

- Found in 45 of 52 (86.5%) of genes in pham
- Manual Annotations of this start: 21 of 29
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Bauer_30 (FN), BenchScraper_34 (AY), BlackSpider_29 (FN), BlueShadow_35 (AY), Bridgette_32 (FA), ChuckDuck_33 (FA), Cole_32 (FF), Constance_32 (FA), CookieBear_35 (AY), Donatella_33 (FF), FosterFrank_33 (FA), Globfish_34 (AY), GlobiWarming_33 (FA), GoodLuckBabe_34 (FF), Gusanita_32 (FF), Halloweekend_32 (FF), Isolde_34 (AY), Judy_33 (FA), Karkharias_32 (FA), KayMoney_33 (FA), Lawnathon_34 (AY), MUWow_33 (AY), MaterMagnus_34 (AY), MidnightRain_34 (AY), Nandita_34 (FF), PeggyLeg03_32 (FA), Popper_32 (FF), QuinnAvery_34 (FF), RadFad_34 (AY), Richie_34 (AY), Ryan_34 (FF), Sakai_34 (AY), Shukran_34 (AY), ThayneTheZag_34 (AY), YoungHarleezy_34 (AY), Zaheer_34 (FF),

Start 13:

- Found in 1 of 52 (1.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Vopal_36 (AY),

Start 16:

- Found in 45 of 52 (86.5%) of genes in pham
- Manual Annotations of this start: 2 of 29
- Called 4.4% of time when present
- Phage (with cluster) where this start called: Hestia_34 (AY), Raphaella_34 (AY),

Start 18:

- Found in 2 of 52 (3.8%) of genes in pham
- Manual Annotations of this start: 1 of 29
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_29 (AY),

Start 23:

- Found in 45 of 52 (86.5%) of genes in pham
- No Manual Annotations of this start.
- Called 4.4% of time when present
- Phage (with cluster) where this start called: Lenoxika_34 (FF), Schism_34 (FF),

Start 34:

- Found in 45 of 52 (86.5%) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Guinevere_34 (FF), Hillester_34 (AY), Ichiang_32 (FF), Kihatsu_35 (FF), SpicyFrank_34 (AY),

Summary by clusters:

There are 8 clusters represented in this pham: DN, CZ2, DB, FA, FF, AY, FJ, FN,

Info for manual annotations of cluster AY:

- Start number 10 was manually annotated 6 times for cluster AY.
- Start number 16 was manually annotated 2 times for cluster AY.
- Start number 18 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster CZ2:

- Start number 8 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster DB:

- Start number 8 was manually annotated 2 times for cluster DB.

Info for manual annotations of cluster DN:

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

Info for manual annotations of cluster FA:

- Start number 10 was manually annotated 7 times for cluster FA.

Info for manual annotations of cluster FF:

- Start number 10 was manually annotated 7 times for cluster FF.

Info for manual annotations of cluster FJ:

- Start number 5 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster FN:

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

Gene Information:

Gene: AbbyDaisy_29 Start: 23243, Stop: 22524, Start Num: 18

Candidate Starts for AbbyDaisy_29:

(2, 23381), (7, 23333), (9, 23309), (14, 23276), (15, 23273), (Start: 18 @23243 has 1 MA's), (21, 23216), (29, 23093), (33, 23066), (41, 22928), (42, 22925), (47, 22859), (54, 22721), (62, 22577), (63, 22562),

Gene: Bauer_30 Start: 23423, Stop: 22656, Start Num: 10

Candidate Starts for Bauer_30:

(1, 23570), (3, 23480), (Start: 10 @23423 has 21 MA's), (Start: 16 @23378 has 2 MA's), (23, 23252), (28, 23213), (34, 23183), (38, 23108), (44, 23006), (54, 22829), (55, 22817),

Gene: BenchScraper_34 Start: 23866, Stop: 23099, Start Num: 10

Candidate Starts for BenchScraper_34:

(1, 24013), (3, 23923), (Start: 10 @23866 has 21 MA's), (Start: 16 @23821 has 2 MA's), (23, 23695), (28, 23656), (34, 23626), (38, 23551), (44, 23449), (54, 23272), (55, 23260),

Gene: BlackSpider_29 Start: 23313, Stop: 22546, Start Num: 10

Candidate Starts for BlackSpider_29:

(1, 23460), (3, 23370), (Start: 10 @23313 has 21 MA's), (Start: 16 @23268 has 2 MA's), (23, 23142), (28, 23103), (34, 23073), (38, 22998), (44, 22896), (54, 22719), (55, 22707),

Gene: BlueShadow_35 Start: 23851, Stop: 23084, Start Num: 10

Candidate Starts for BlueShadow_35:

(1, 23998), (3, 23908), (Start: 10 @23851 has 21 MA's), (Start: 16 @23806 has 2 MA's), (23, 23680), (28, 23641), (34, 23611), (38, 23536), (44, 23434), (54, 23257), (55, 23245),

Gene: Bridgette_32 Start: 23917, Stop: 23150, Start Num: 10

Candidate Starts for Bridgette_32:

(1, 24064), (3, 23974), (Start: 10 @23917 has 21 MA's), (Start: 16 @23872 has 2 MA's), (23, 23746), (28, 23707), (34, 23677), (38, 23602), (44, 23500), (54, 23323), (55, 23311),

Gene: Budski_35 Start: 29279, Stop: 28509, Start Num: 8

Candidate Starts for Budski_35:

(Start: 8 @29279 has 4 MA's), (11, 29261), (12, 29252), (17, 29216), (24, 29102), (26, 29072), (29, 29066), (30, 29060), (32, 29045), (35, 29018), (36, 29015), (37, 29000), (45, 28868), (48, 28823), (53, 28715), (59, 28616), (64, 28526),

Gene: ChuckDuck_33 Start: 23685, Stop: 22918, Start Num: 10

Candidate Starts for ChuckDuck_33:

(1, 23832), (3, 23742), (Start: 10 @23685 has 21 MA's), (Start: 16 @23640 has 2 MA's), (23, 23514), (28, 23475), (34, 23445), (38, 23370), (44, 23268), (54, 23091), (55, 23079),

Gene: Cole_32 Start: 25385, Stop: 24618, Start Num: 10

Candidate Starts for Cole_32:

(1, 25532), (3, 25442), (Start: 10 @25385 has 21 MA's), (Start: 16 @25340 has 2 MA's), (23, 25214), (28, 25175), (34, 25145), (38, 25070), (44, 24968), (54, 24791), (55, 24779),

Gene: Constance_32 Start: 24157, Stop: 23390, Start Num: 10

Candidate Starts for Constance_32:

(1, 24304), (3, 24214), (Start: 10 @24157 has 21 MA's), (Start: 16 @24112 has 2 MA's), (23, 23986), (28, 23947), (34, 23917), (38, 23842), (44, 23740), (54, 23563), (55, 23551),

Gene: CookieBear_35 Start: 23851, Stop: 23084, Start Num: 10

Candidate Starts for CookieBear_35:

(1, 23998), (3, 23908), (Start: 10 @23851 has 21 MA's), (Start: 16 @23806 has 2 MA's), (23, 23680), (28, 23641), (34, 23611), (38, 23536), (44, 23434), (54, 23257), (55, 23245),

Gene: DirtyBoi_32 Start: 28002, Stop: 27232, Start Num: 8

Candidate Starts for DirtyBoi_32:

(6, 28020), (Start: 8 @28002 has 4 MA's), (11, 27984), (12, 27975), (17, 27939), (24, 27825), (26, 27795), (29, 27789), (30, 27783), (32, 27768), (36, 27738), (37, 27723), (45, 27591), (48, 27546), (53, 27438), (54, 27417), (59, 27339), (61, 27273), (64, 27249),

Gene: Donatella_33 Start: 25849, Stop: 25082, Start Num: 10

Candidate Starts for Donatella_33:

(1, 25996), (3, 25906), (Start: 10 @25849 has 21 MA's), (Start: 16 @25804 has 2 MA's), (23, 25678), (28, 25639), (34, 25609), (38, 25534), (44, 25432), (54, 25255), (55, 25243),

Gene: Eyes_30 Start: 27021, Stop: 26251, Start Num: 8

Candidate Starts for Eyes_30:

(Start: 8 @27021 has 4 MA's), (11, 27003), (12, 26994), (17, 26958), (24, 26844), (26, 26814), (29, 26808), (30, 26802), (32, 26787), (35, 26760), (36, 26757), (37, 26742), (43, 26616), (48, 26565), (49, 26502), (53, 26457), (54, 26436), (59, 26358), (60, 26301), (61, 26292), (64, 26268),

Gene: FosterFrank_33 Start: 23759, Stop: 22992, Start Num: 10

Candidate Starts for FosterFrank_33:

(1, 23906), (3, 23816), (Start: 10 @23759 has 21 MA's), (Start: 16 @23714 has 2 MA's), (23, 23588), (28, 23549), (34, 23519), (38, 23444), (44, 23342), (54, 23165), (55, 23153),

Gene: Globfish_34 Start: 24085, Stop: 23318, Start Num: 10

Candidate Starts for Globfish_34:

(1, 24232), (3, 24142), (Start: 10 @24085 has 21 MA's), (Start: 16 @24040 has 2 MA's), (23, 23914), (28, 23875), (34, 23845), (38, 23770), (44, 23668), (54, 23491), (55, 23479),

Gene: GlobiWarming_33 Start: 23600, Stop: 22833, Start Num: 10

Candidate Starts for GlobiWarming_33:

(1, 23747), (3, 23657), (Start: 10 @23600 has 21 MA's), (Start: 16 @23555 has 2 MA's), (23, 23429), (28, 23390), (34, 23360), (38, 23285), (44, 23183), (54, 23006), (55, 22994),

Gene: GoodLuckBabe_34 Start: 25967, Stop: 25200, Start Num: 10

Candidate Starts for GoodLuckBabe_34:

(1, 26114), (3, 26024), (Start: 10 @25967 has 21 MA's), (Start: 16 @25922 has 2 MA's), (23, 25796), (28, 25757), (34, 25727), (38, 25652), (44, 25550), (54, 25373), (55, 25361),

Gene: Guinevere_34 Start: 25317, Stop: 24790, Start Num: 34

Candidate Starts for Guinevere_34:

(1, 25704), (3, 25614), (Start: 10 @25557 has 21 MA's), (Start: 16 @25512 has 2 MA's), (23, 25386), (28, 25347), (34, 25317), (38, 25242), (44, 25140), (54, 24963), (55, 24951),

Gene: Gusanita_32 Start: 25320, Stop: 24553, Start Num: 10

Candidate Starts for Gusanita_32:

(1, 25467), (3, 25377), (Start: 10 @25320 has 21 MA's), (Start: 16 @25275 has 2 MA's), (23, 25149), (28, 25110), (34, 25080), (38, 25005), (44, 24903), (54, 24726), (55, 24714),

Gene: Halloweekend_32 Start: 25264, Stop: 24497, Start Num: 10

Candidate Starts for Halloweekend_32:

(1, 25411), (3, 25321), (Start: 10 @25264 has 21 MA's), (Start: 16 @25219 has 2 MA's), (23, 25093), (28, 25054), (34, 25024), (38, 24949), (44, 24847), (54, 24670), (55, 24658),

Gene: Hestia_34 Start: 23845, Stop: 23123, Start Num: 16

Candidate Starts for Hestia_34:

(1, 24037), (3, 23947), (Start: 10 @23890 has 21 MA's), (Start: 16 @23845 has 2 MA's), (23, 23719), (28, 23680), (34, 23650), (38, 23575), (44, 23473), (54, 23296), (55, 23284),

Gene: Hillester_34 Start: 23611, Stop: 23084, Start Num: 34

Candidate Starts for Hillester_34:

(1, 23998), (3, 23908), (Start: 10 @23851 has 21 MA's), (Start: 16 @23806 has 2 MA's), (23, 23680), (28, 23641), (34, 23611), (38, 23536), (44, 23434), (54, 23257), (55, 23245),

Gene: Ichiang_32 Start: 25043, Stop: 24516, Start Num: 34

Candidate Starts for Ichiang_32:

(1, 25430), (3, 25340), (Start: 10 @25283 has 21 MA's), (Start: 16 @25238 has 2 MA's), (23, 25112), (28, 25073), (34, 25043), (38, 24968), (44, 24866), (54, 24689), (55, 24677),

Gene: Isolde_34 Start: 23620, Stop: 22853, Start Num: 10

Candidate Starts for Isolde_34:

(1, 23767), (3, 23677), (Start: 10 @23620 has 21 MA's), (Start: 16 @23575 has 2 MA's), (23, 23449), (28, 23410), (34, 23380), (38, 23305), (44, 23203), (54, 23026), (55, 23014),

Gene: Judy_33 Start: 24168, Stop: 23401, Start Num: 10

Candidate Starts for Judy_33:

(1, 24315), (3, 24225), (Start: 10 @24168 has 21 MA's), (Start: 16 @24123 has 2 MA's), (23, 23997), (28, 23958), (34, 23928), (38, 23853), (44, 23751), (54, 23574), (55, 23562),

Gene: Karkharias_32 Start: 23545, Stop: 22778, Start Num: 10

Candidate Starts for Karkharias_32:

(1, 23692), (3, 23602), (Start: 10 @23545 has 21 MA's), (Start: 16 @23500 has 2 MA's), (23, 23374), (28, 23335), (34, 23305), (38, 23230), (44, 23128), (54, 22951), (55, 22939),

Gene: KayMoney_33 Start: 23689, Stop: 22922, Start Num: 10

Candidate Starts for KayMoney_33:

(1, 23836), (3, 23746), (Start: 10 @23689 has 21 MA's), (Start: 16 @23644 has 2 MA's), (23, 23518), (28, 23479), (34, 23449), (38, 23374), (44, 23272), (54, 23095), (55, 23083),

Gene: Kihatsu_35 Start: 25663, Stop: 25136, Start Num: 34

Candidate Starts for Kihatsu_35:

(1, 26050), (3, 25960), (Start: 10 @25903 has 21 MA's), (Start: 16 @25858 has 2 MA's), (23, 25732), (28, 25693), (34, 25663), (38, 25588), (44, 25486), (54, 25309), (55, 25297),

Gene: Kukla_30 Start: 24104, Stop: 23319, Start Num: 5

Candidate Starts for Kukla_30:

(4, 24122), (Start: 5 @24104 has 1 MA's), (Start: 18 @24008 has 1 MA's), (19, 23993), (25, 23879), (39, 23723), (40, 23708), (43, 23675), (46, 23666), (50, 23558), (51, 23555), (52, 23546), (56, 23474), (58, 23459),

Gene: Lawnathon_34 Start: 23714, Stop: 22947, Start Num: 10

Candidate Starts for Lawnathon_34:

(1, 23861), (3, 23771), (Start: 10 @23714 has 21 MA's), (Start: 16 @23669 has 2 MA's), (23, 23543), (28, 23504), (34, 23474), (38, 23399), (44, 23297), (54, 23120), (55, 23108),

Gene: Lenoxika_34 Start: 25382, Stop: 24786, Start Num: 23

Candidate Starts for Lenoxika_34:

(1, 25700), (3, 25610), (Start: 10 @25553 has 21 MA's), (Start: 16 @25508 has 2 MA's), (23, 25382), (28, 25343), (34, 25313), (38, 25238), (44, 25136), (54, 24959), (55, 24947),

Gene: MUWow_33 Start: 23878, Stop: 23111, Start Num: 10

Candidate Starts for MUWow_33:

(1, 24025), (3, 23935), (Start: 10 @23878 has 21 MA's), (Start: 16 @23833 has 2 MA's), (23, 23707), (28, 23668), (34, 23638), (38, 23563), (44, 23461), (54, 23284), (55, 23272),

Gene: MaterMagnus_34 Start: 23861, Stop: 23094, Start Num: 10

Candidate Starts for MaterMagnus_34:

(1, 24008), (3, 23918), (Start: 10 @23861 has 21 MA's), (Start: 16 @23816 has 2 MA's), (23, 23690), (28, 23651), (34, 23621), (38, 23546), (44, 23444), (54, 23267), (55, 23255),

Gene: Matteo_26 Start: 23698, Stop: 22928, Start Num: 8

Candidate Starts for Matteo_26:

(Start: 8 @23698 has 4 MA's), (11, 23680), (12, 23671), (17, 23635), (24, 23521), (26, 23491), (29, 23485), (30, 23479), (32, 23464), (35, 23437), (36, 23434), (37, 23419), (45, 23287), (48, 23242), (53, 23134), (59, 23035), (64, 22945),

Gene: MidnightRain_34 Start: 23850, Stop: 23083, Start Num: 10

Candidate Starts for MidnightRain_34:

(1, 23997), (3, 23907), (Start: 10 @23850 has 21 MA's), (Start: 16 @23805 has 2 MA's), (23, 23679), (28, 23640), (34, 23610), (38, 23535), (44, 23433), (54, 23256), (55, 23244),

Gene: Nandita_34 Start: 25557, Stop: 24790, Start Num: 10

Candidate Starts for Nandita_34:

(1, 25704), (3, 25614), (Start: 10 @25557 has 21 MA's), (Start: 16 @25512 has 2 MA's), (23, 25386), (28, 25347), (34, 25317), (38, 25242), (44, 25140), (54, 24963), (55, 24951),

Gene: PeggyLeg03_32 Start: 24157, Stop: 23390, Start Num: 10

Candidate Starts for PeggyLeg03_32:

(1, 24304), (3, 24214), (Start: 10 @24157 has 21 MA's), (Start: 16 @24112 has 2 MA's), (23, 23986), (28, 23947), (34, 23917), (38, 23842), (44, 23740), (54, 23563), (55, 23551),

Gene: Popper_32 Start: 25470, Stop: 24703, Start Num: 10

Candidate Starts for Popper_32:

(1, 25617), (3, 25527), (Start: 10 @25470 has 21 MA's), (Start: 16 @25425 has 2 MA's), (23, 25299), (28, 25260), (34, 25230), (38, 25155), (44, 25053), (54, 24876), (55, 24864),

Gene: QuinnAvery_34 Start: 25647, Stop: 24880, Start Num: 10

Candidate Starts for QuinnAvery_34:

(1, 25794), (3, 25704), (Start: 10 @25647 has 21 MA's), (Start: 16 @25602 has 2 MA's), (23, 25476), (28, 25437), (34, 25407), (38, 25332), (44, 25230), (54, 25053), (55, 25041),

Gene: RadFad_34 Start: 23851, Stop: 23084, Start Num: 10

Candidate Starts for RadFad_34:

(1, 23998), (3, 23908), (Start: 10 @23851 has 21 MA's), (Start: 16 @23806 has 2 MA's), (23, 23680), (28, 23641), (34, 23611), (38, 23536), (44, 23434), (54, 23257), (55, 23245),

Gene: Raphaella_34 Start: 23740, Stop: 23018, Start Num: 16

Candidate Starts for Raphaella_34:

(1, 23932), (3, 23842), (Start: 10 @23785 has 21 MA's), (Start: 16 @23740 has 2 MA's), (23, 23614), (28, 23575), (34, 23545), (38, 23470), (44, 23368), (54, 23191), (55, 23179),

Gene: Richie_34 Start: 23866, Stop: 23099, Start Num: 10

Candidate Starts for Richie_34:

(1, 24013), (3, 23923), (Start: 10 @23866 has 21 MA's), (Start: 16 @23821 has 2 MA's), (23, 23695), (28, 23656), (34, 23626), (38, 23551), (44, 23449), (54, 23272), (55, 23260),

Gene: Ryan_34 Start: 26168, Stop: 25401, Start Num: 10

Candidate Starts for Ryan_34:

(1, 26315), (3, 26225), (Start: 10 @26168 has 21 MA's), (Start: 16 @26123 has 2 MA's), (23, 25997), (28, 25958), (34, 25928), (38, 25853), (44, 25751), (54, 25574), (55, 25562),

Gene: Sakai_34 Start: 23794, Stop: 23027, Start Num: 10

Candidate Starts for Sakai_34:

(1, 23941), (3, 23851), (Start: 10 @23794 has 21 MA's), (Start: 16 @23749 has 2 MA's), (23, 23623), (28, 23584), (34, 23554), (38, 23479), (44, 23377), (54, 23200), (55, 23188),

Gene: Schism_34 Start: 25386, Stop: 24790, Start Num: 23

Candidate Starts for Schism_34:

(1, 25704), (3, 25614), (Start: 10 @25557 has 21 MA's), (Start: 16 @25512 has 2 MA's), (23, 25386), (28, 25347), (34, 25317), (38, 25242), (44, 25140), (54, 24963), (55, 24951),

Gene: Shukran_34 Start: 23960, Stop: 23193, Start Num: 10

Candidate Starts for Shukran_34:

(1, 24107), (3, 24017), (Start: 10 @23960 has 21 MA's), (Start: 16 @23915 has 2 MA's), (23, 23789), (28, 23750), (34, 23720), (38, 23645), (44, 23543), (54, 23366), (55, 23354),

Gene: SpicyFrank_34 Start: 23846, Stop: 23319, Start Num: 34

Candidate Starts for SpicyFrank_34:

(1, 24233), (3, 24143), (Start: 10 @24086 has 21 MA's), (Start: 16 @24041 has 2 MA's), (23, 23915), (28, 23876), (34, 23846), (38, 23771), (44, 23669), (54, 23492), (55, 23480),

Gene: ThayneTheZag_34 Start: 24005, Stop: 23238, Start Num: 10

Candidate Starts for ThayneTheZag_34:

(1, 24152), (3, 24062), (Start: 10 @24005 has 21 MA's), (Start: 16 @23960 has 2 MA's), (23, 23834), (28, 23795), (34, 23765), (38, 23690), (44, 23588), (54, 23411), (55, 23399),

Gene: Vopal_36 Start: 25596, Stop: 24844, Start Num: 13

Candidate Starts for Vopal_36:

(13, 25596), (19, 25548), (20, 25542), (22, 25506), (27, 25422), (29, 25419), (31, 25410), (49, 25110), (57, 25014), (60, 24912), (63, 24885), (65, 24852),

Gene: YoungHarleezy_34 Start: 23864, Stop: 23097, Start Num: 10

Candidate Starts for YoungHarleezy_34:

(1, 24011), (3, 23921), (Start: 10 @23864 has 21 MA's), (Start: 16 @23819 has 2 MA's), (23, 23693), (28, 23654), (34, 23624), (38, 23549), (44, 23447), (54, 23270), (55, 23258),

Gene: Zaheer_34 Start: 26257, Stop: 25490, Start Num: 10

Candidate Starts for Zaheer_34:

(1, 26404), (3, 26314), (Start: 10 @26257 has 21 MA's), (Start: 16 @26212 has 2 MA's), (23, 26086), (28, 26047), (34, 26017), (38, 25942), (44, 25840), (54, 25663), (55, 25651),