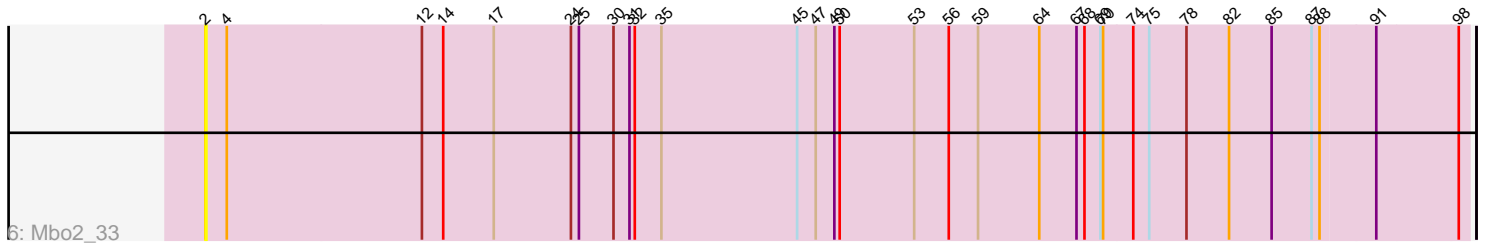
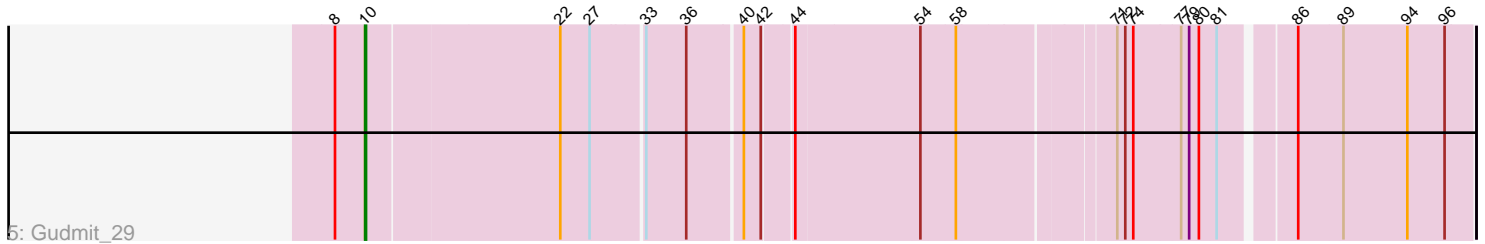
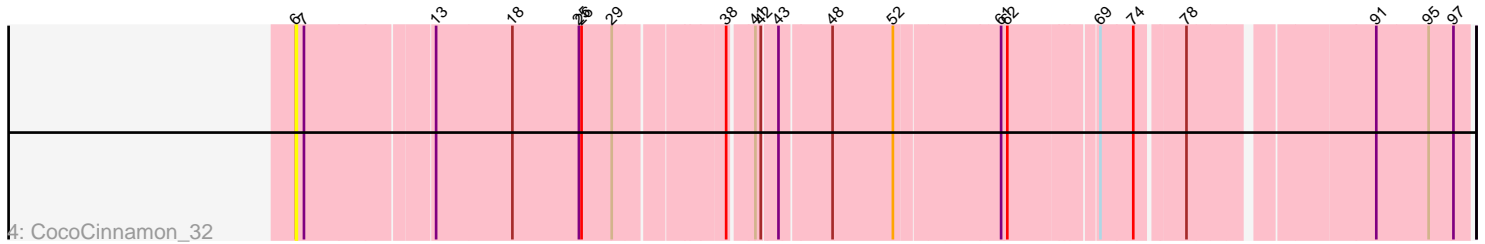
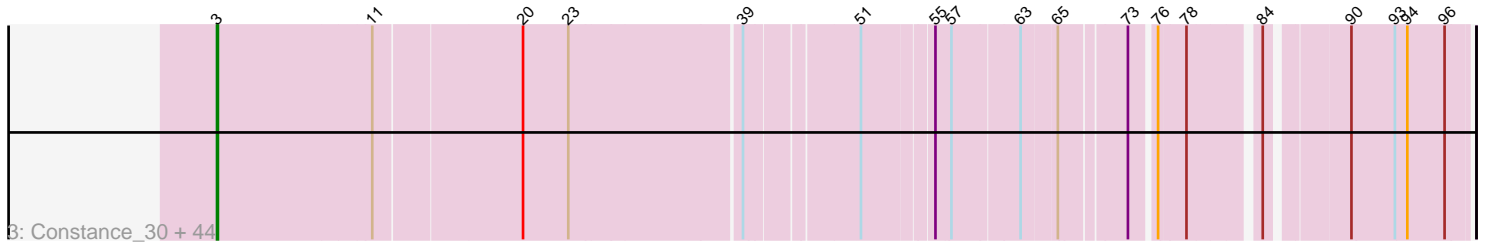
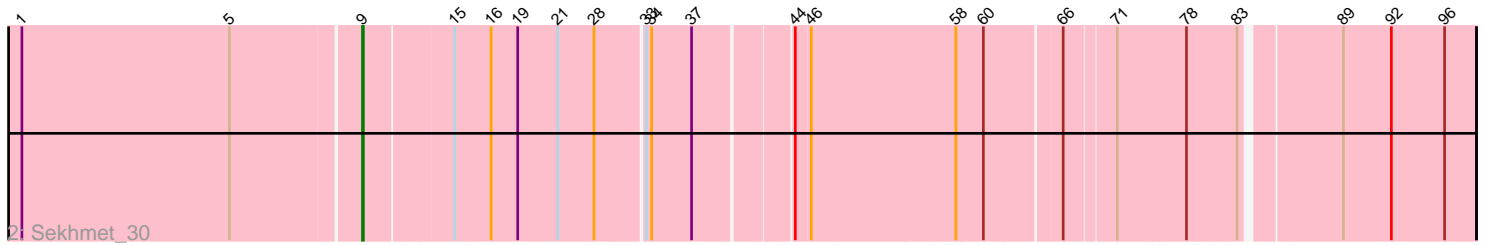
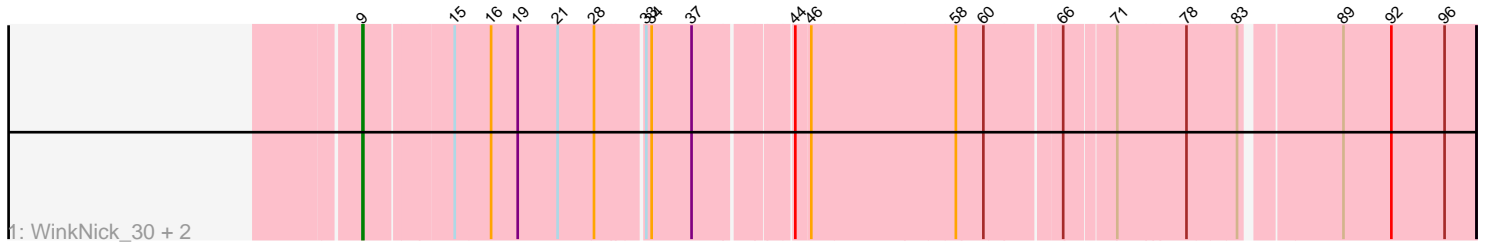


Pham 219808



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 219808 Report

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

Pham number 219808 has 52 members, 25 are drafts.

Phages represented in each track:

- Track 1 : WinkNick_30, Invectra_31, Easley_30
- Track 2 : Sekhmet_30
- Track 3 : Constance_30, PeggyLeg03_30, RadFad_32, Ichiang_30, Shukran_32, KayMoney_31, Halloweekend_30, MaterMagnus_32, MidnightRain_32, Hestia_32, ThayneTheZag_32, Hillester_32, Bauer_28, Popper_30, Kihatsu_33, Raphaella_32, Karkharias_30, MUWow_31, GlobiWarming_31, Sakai_32, BlackSpider_27, Richie_32, BenchScraper_32, Zaheer_32, FosterFrank_31, CookieBear_33, Gusanita_30, Guinevere_32, Judy_31, Lenoxika_32, Isolde_32, Schism_32, Lawnathon_32, Bridgette_30, QuinnAvery_32, Cole_30, YoungHarleezy_32, Donatella_31, Ryan_32, ChuckDuck_31, BlueShadow_33, SpicyFrank_32, Nandita_32, Globfish_32, GoodLuckBabe_32
- Track 4 : CocoCinnamon_32
- Track 5 : Gudmit_29
- Track 6 : Mbo2_33

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

The start number called the most often in the published annotations is 3, it was called in 23 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bauer_28, BenchScraper_32, BlackSpider_27, BlueShadow_33, Bridgette_30, ChuckDuck_31, Cole_30, Constance_30, CookieBear_33, Donatella_31, FosterFrank_31, Globfish_32, GlobiWarming_31, GoodLuckBabe_32, Guinevere_32, Gusanita_30, Halloweekend_30, Hestia_32, Hillester_32, Ichiang_30, Isolde_32, Judy_31, Karkharias_30, KayMoney_31, Kihatsu_33, Lawnathon_32, Lenoxika_32, MUWow_31, MaterMagnus_32, MidnightRain_32, Nandita_32, PeggyLeg03_30, Popper_30, QuinnAvery_32, RadFad_32, Raphaella_32, Richie_32, Ryan_32, Sakai_32, Schism_32, Shukran_32, SpicyFrank_32, ThayneTheZag_32, YoungHarleezy_32, Zaheer_32,

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

-

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

- CocoCinnamon_32, Easley_30, Gudmit_29, Invecetra_31, Mbo2_33, Sekhmet_30, WinkNick_30,

Summary by start number:

Start 2:

- 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: Mbo2_33 (singleton),

Start 3:

- Found in 45 of 52 (86.5%) of genes in pham
- Manual Annotations of this start: 23 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bauer_28 (FN), BenchScraper_32 (AY), BlackSpider_27 (FN), BlueShadow_33 (AY), Bridgette_30 (FA), ChuckDuck_31 (FA), Cole_30 (FF), Constance_30 (FA), CookieBear_33 (AY), Donatella_31 (FF), FosterFrank_31 (FA), Globfish_32 (AY), GlobiWarming_31 (FA), GoodLuckBabe_32 (FF), Guinevere_32 (FF), Gusanita_30 (FF), Halloweekend_30 (FF), Hestia_32 (AY), Hillester_32 (AY), Ichiang_30 (FF), Isolde_32 (AY), Judy_31 (FA), Karkharias_30 (FA), KayMoney_31 (FA), Kihatsu_33 (FF), Lawnathon_32 (AY), Lenoxika_32 (FF), MUWow_31 (AY), MaterMagnus_32 (AY), MidnightRain_32 (AY), Nandita_32 (FF), PeggyLeg03_30 (FA), Popper_30 (FF), QuinnAvery_32 (FF), RadFad_32 (AY), Raphaella_32 (AY), Richie_32 (AY), Ryan_32 (FF), Sakai_32 (AY), Schism_32 (FF), Shukran_32 (AY), SpicyFrank_32 (AY), ThayneTheZag_32 (AY), YoungHarleezy_32 (AY), Zaheer_32 (FF),

Start 6:

- 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: CocoCinnamon_32 (FO),

Start 9:

- Found in 4 of 52 (7.7%) of genes in pham
- Manual Annotations of this start: 3 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Easley_30 (CZ4), Invecetra_31 (CZ4), Sekhmet_30 (CZ4), WinkNick_30 (CZ4),

Start 10:

- Found in 1 of 52 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gudmit_29 (singleton),

Summary by clusters:

There are 7 clusters represented in this pham: singleton, CZ4, FA, FF, AY, FN, FO,

Info for manual annotations of cluster AY:

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

Info for manual annotations of cluster CZ4:

- Start number 9 was manually annotated 3 times for cluster CZ4.

Info for manual annotations of cluster FA:

- Start number 3 was manually annotated 7 times for cluster FA.

Info for manual annotations of cluster FF:

- Start number 3 was manually annotated 7 times for cluster FF.

Info for manual annotations of cluster FN:

- Start number 3 was manually annotated 1 time for cluster FN.

Gene Information:

Gene: Bauer_28 Start: 21209, Stop: 22462, Start Num: 3

Candidate Starts for Bauer_28:

(Start: 3 @21209 has 23 MA's), (11, 21377), (20, 21536), (23, 21587), (39, 21770), (51, 21881), (55, 21953), (57, 21968), (63, 22040), (65, 22076), (73, 22142), (76, 22166), (78, 22193), (84, 22259), (90, 22337), (93, 22385), (94, 22397), (96, 22439),

Gene: BenchScraper_32 Start: 21652, Stop: 22905, Start Num: 3

Candidate Starts for BenchScraper_32:

(Start: 3 @21652 has 23 MA's), (11, 21820), (20, 21979), (23, 22030), (39, 22213), (51, 22324), (55, 22396), (57, 22411), (63, 22483), (65, 22519), (73, 22585), (76, 22609), (78, 22636), (84, 22702), (90, 22780), (93, 22828), (94, 22840), (96, 22882),

Gene: BlackSpider_27 Start: 21099, Stop: 22352, Start Num: 3

Candidate Starts for BlackSpider_27:

(Start: 3 @21099 has 23 MA's), (11, 21267), (20, 21426), (23, 21477), (39, 21660), (51, 21771), (55, 21843), (57, 21858), (63, 21930), (65, 21966), (73, 22032), (76, 22056), (78, 22083), (84, 22149), (90, 22227), (93, 22275), (94, 22287), (96, 22329),

Gene: BlueShadow_33 Start: 21637, Stop: 22890, Start Num: 3

Candidate Starts for BlueShadow_33:

(Start: 3 @21637 has 23 MA's), (11, 21805), (20, 21964), (23, 22015), (39, 22198), (51, 22309), (55, 22381), (57, 22396), (63, 22468), (65, 22504), (73, 22570), (76, 22594), (78, 22621), (84, 22687), (90, 22765), (93, 22813), (94, 22825), (96, 22867),

Gene: Bridgette_30 Start: 21703, Stop: 22956, Start Num: 3

Candidate Starts for Bridgette_30:

(Start: 3 @21703 has 23 MA's), (11, 21871), (20, 22030), (23, 22081), (39, 22264), (51, 22375), (55, 22447), (57, 22462), (63, 22534), (65, 22570), (73, 22636), (76, 22660), (78, 22687), (84, 22753), (90, 22831), (93, 22879), (94, 22891), (96, 22933),

Gene: ChuckDuck_31 Start: 21471, Stop: 22724, Start Num: 3

Candidate Starts for ChuckDuck_31:

(Start: 3 @21471 has 23 MA's), (11, 21639), (20, 21798), (23, 21849), (39, 22032), (51, 22143), (55, 22215), (57, 22230), (63, 22302), (65, 22338), (73, 22404), (76, 22428), (78, 22455), (84, 22521), (90,

22599), (93, 22647), (94, 22659), (96, 22701),

Gene: CocoCinnamon_32 Start: 21380, Stop: 22567, Start Num: 6

Candidate Starts for CocoCinnamon_32:

(6, 21380), (7, 21389), (13, 21524), (18, 21608), (25, 21683), (26, 21686), (29, 21719), (38, 21830), (41, 21854), (42, 21860), (43, 21875), (48, 21929), (52, 21995), (61, 22103), (62, 22109), (69, 22199), (74, 22235), (78, 22283), (91, 22466), (95, 22523), (97, 22550),

Gene: Cole_30 Start: 23171, Stop: 24424, Start Num: 3

Candidate Starts for Cole_30:

(Start: 3 @23171 has 23 MA's), (11, 23339), (20, 23498), (23, 23549), (39, 23732), (51, 23843), (55, 23915), (57, 23930), (63, 24002), (65, 24038), (73, 24104), (76, 24128), (78, 24155), (84, 24221), (90, 24299), (93, 24347), (94, 24359), (96, 24401),

Gene: Constance_30 Start: 21943, Stop: 23196, Start Num: 3

Candidate Starts for Constance_30:

(Start: 3 @21943 has 23 MA's), (11, 22111), (20, 22270), (23, 22321), (39, 22504), (51, 22615), (55, 22687), (57, 22702), (63, 22774), (65, 22810), (73, 22876), (76, 22900), (78, 22927), (84, 22993), (90, 23071), (93, 23119), (94, 23131), (96, 23173),

Gene: CookieBear_33 Start: 21637, Stop: 22890, Start Num: 3

Candidate Starts for CookieBear_33:

(Start: 3 @21637 has 23 MA's), (11, 21805), (20, 21964), (23, 22015), (39, 22198), (51, 22309), (55, 22381), (57, 22396), (63, 22468), (65, 22504), (73, 22570), (76, 22594), (78, 22621), (84, 22687), (90, 22765), (93, 22813), (94, 22825), (96, 22867),

Gene: Donatella_31 Start: 23635, Stop: 24888, Start Num: 3

Candidate Starts for Donatella_31:

(Start: 3 @23635 has 23 MA's), (11, 23803), (20, 23962), (23, 24013), (39, 24196), (51, 24307), (55, 24379), (57, 24394), (63, 24466), (65, 24502), (73, 24568), (76, 24592), (78, 24619), (84, 24685), (90, 24763), (93, 24811), (94, 24823), (96, 24865),

Gene: Easley_30 Start: 24149, Stop: 25288, Start Num: 9

Candidate Starts for Easley_30:

(Start: 9 @24149 has 3 MA's), (15, 24239), (16, 24278), (19, 24308), (21, 24353), (28, 24392), (33, 24440), (34, 24446), (37, 24491), (44, 24584), (46, 24599), (58, 24755), (60, 24785), (66, 24863), (71, 24914), (78, 24989), (83, 25040), (89, 25139), (92, 25193), (96, 25253),

Gene: FosterFrank_31 Start: 21545, Stop: 22798, Start Num: 3

Candidate Starts for FosterFrank_31:

(Start: 3 @21545 has 23 MA's), (11, 21713), (20, 21872), (23, 21923), (39, 22106), (51, 22217), (55, 22289), (57, 22304), (63, 22376), (65, 22412), (73, 22478), (76, 22502), (78, 22529), (84, 22595), (90, 22673), (93, 22721), (94, 22733), (96, 22775),

Gene: Globfish_32 Start: 21871, Stop: 23124, Start Num: 3

Candidate Starts for Globfish_32:

(Start: 3 @21871 has 23 MA's), (11, 22039), (20, 22198), (23, 22249), (39, 22432), (51, 22543), (55, 22615), (57, 22630), (63, 22702), (65, 22738), (73, 22804), (76, 22828), (78, 22855), (84, 22921), (90, 22999), (93, 23047), (94, 23059), (96, 23101),

Gene: GlobiWarming_31 Start: 21386, Stop: 22639, Start Num: 3

Candidate Starts for GlobiWarming_31:

(Start: 3 @21386 has 23 MA's), (11, 21554), (20, 21713), (23, 21764), (39, 21947), (51, 22058), (55, 22130), (57, 22145), (63, 22217), (65, 22253), (73, 22319), (76, 22343), (78, 22370), (84, 22436), (90, 22514), (93, 22562), (94, 22574), (96, 22616),

Gene: GoodLuckBabe_32 Start: 23753, Stop: 25006, Start Num: 3

Candidate Starts for GoodLuckBabe_32:

(Start: 3 @23753 has 23 MA's), (11, 23921), (20, 24080), (23, 24131), (39, 24314), (51, 24425), (55, 24497), (57, 24512), (63, 24584), (65, 24620), (73, 24686), (76, 24710), (78, 24737), (84, 24803), (90, 24881), (93, 24929), (94, 24941), (96, 24983),

Gene: Gudmit_29 Start: 22579, Stop: 23712, Start Num: 10

Candidate Starts for Gudmit_29:

(8, 22546), (Start: 10 @22579 has 1 MA's), (22, 22786), (27, 22819), (33, 22870), (36, 22915), (40, 22972), (42, 22990), (44, 23017), (54, 23152), (58, 23188), (71, 23347), (72, 23356), (74, 23365), (77, 23416), (79, 23425), (80, 23434), (81, 23452), (86, 23521), (89, 23569), (94, 23641), (96, 23683),

Gene: Guinevere_32 Start: 23343, Stop: 24596, Start Num: 3

Candidate Starts for Guinevere_32:

(Start: 3 @23343 has 23 MA's), (11, 23511), (20, 23670), (23, 23721), (39, 23904), (51, 24015), (55, 24087), (57, 24102), (63, 24174), (65, 24210), (73, 24276), (76, 24300), (78, 24327), (84, 24393), (90, 24471), (93, 24519), (94, 24531), (96, 24573),

Gene: Gusanita_30 Start: 23106, Stop: 24359, Start Num: 3

Candidate Starts for Gusanita_30:

(Start: 3 @23106 has 23 MA's), (11, 23274), (20, 23433), (23, 23484), (39, 23667), (51, 23778), (55, 23850), (57, 23865), (63, 23937), (65, 23973), (73, 24039), (76, 24063), (78, 24090), (84, 24156), (90, 24234), (93, 24282), (94, 24294), (96, 24336),

Gene: Halloweekend_30 Start: 23050, Stop: 24303, Start Num: 3

Candidate Starts for Halloweekend_30:

(Start: 3 @23050 has 23 MA's), (11, 23218), (20, 23377), (23, 23428), (39, 23611), (51, 23722), (55, 23794), (57, 23809), (63, 23881), (65, 23917), (73, 23983), (76, 24007), (78, 24034), (84, 24100), (90, 24178), (93, 24226), (94, 24238), (96, 24280),

Gene: Hestia_32 Start: 21676, Stop: 22929, Start Num: 3

Candidate Starts for Hestia_32:

(Start: 3 @21676 has 23 MA's), (11, 21844), (20, 22003), (23, 22054), (39, 22237), (51, 22348), (55, 22420), (57, 22435), (63, 22507), (65, 22543), (73, 22609), (76, 22633), (78, 22660), (84, 22726), (90, 22804), (93, 22852), (94, 22864), (96, 22906),

Gene: Hillester_32 Start: 21637, Stop: 22890, Start Num: 3

Candidate Starts for Hillester_32:

(Start: 3 @21637 has 23 MA's), (11, 21805), (20, 21964), (23, 22015), (39, 22198), (51, 22309), (55, 22381), (57, 22396), (63, 22468), (65, 22504), (73, 22570), (76, 22594), (78, 22621), (84, 22687), (90, 22765), (93, 22813), (94, 22825), (96, 22867),

Gene: Ichiang_30 Start: 23069, Stop: 24322, Start Num: 3

Candidate Starts for Ichiang_30:

(Start: 3 @23069 has 23 MA's), (11, 23237), (20, 23396), (23, 23447), (39, 23630), (51, 23741), (55, 23813), (57, 23828), (63, 23900), (65, 23936), (73, 24002), (76, 24026), (78, 24053), (84, 24119), (90, 24197), (93, 24245), (94, 24257), (96, 24299),

Gene: Invectra_31 Start: 24806, Stop: 25945, Start Num: 9

Candidate Starts for Invectra_31:

(Start: 9 @24806 has 3 MA's), (15, 24896), (16, 24935), (19, 24965), (21, 25010), (28, 25049), (33, 25097), (34, 25103), (37, 25148), (44, 25241), (46, 25256), (58, 25412), (60, 25442), (66, 25520), (71, 25571), (78, 25646), (83, 25697), (89, 25796), (92, 25850), (96, 25910),

Gene: Isolde_32 Start: 21406, Stop: 22659, Start Num: 3

Candidate Starts for Isolde_32:

(Start: 3 @21406 has 23 MA's), (11, 21574), (20, 21733), (23, 21784), (39, 21967), (51, 22078), (55, 22150), (57, 22165), (63, 22237), (65, 22273), (73, 22339), (76, 22363), (78, 22390), (84, 22456), (90, 22534), (93, 22582), (94, 22594), (96, 22636),

Gene: Judy_31 Start: 21954, Stop: 23207, Start Num: 3

Candidate Starts for Judy_31:

(Start: 3 @21954 has 23 MA's), (11, 22122), (20, 22281), (23, 22332), (39, 22515), (51, 22626), (55, 22698), (57, 22713), (63, 22785), (65, 22821), (73, 22887), (76, 22911), (78, 22938), (84, 23004), (90, 23082), (93, 23130), (94, 23142), (96, 23184),

Gene: Karkharias_30 Start: 21331, Stop: 22584, Start Num: 3

Candidate Starts for Karkharias_30:

(Start: 3 @21331 has 23 MA's), (11, 21499), (20, 21658), (23, 21709), (39, 21892), (51, 22003), (55, 22075), (57, 22090), (63, 22162), (65, 22198), (73, 22264), (76, 22288), (78, 22315), (84, 22381), (90, 22459), (93, 22507), (94, 22519), (96, 22561),

Gene: KayMoney_31 Start: 21475, Stop: 22728, Start Num: 3

Candidate Starts for KayMoney_31:

(Start: 3 @21475 has 23 MA's), (11, 21643), (20, 21802), (23, 21853), (39, 22036), (51, 22147), (55, 22219), (57, 22234), (63, 22306), (65, 22342), (73, 22408), (76, 22432), (78, 22459), (84, 22525), (90, 22603), (93, 22651), (94, 22663), (96, 22705),

Gene: Kihatsu_33 Start: 23689, Stop: 24942, Start Num: 3

Candidate Starts for Kihatsu_33:

(Start: 3 @23689 has 23 MA's), (11, 23857), (20, 24016), (23, 24067), (39, 24250), (51, 24361), (55, 24433), (57, 24448), (63, 24520), (65, 24556), (73, 24622), (76, 24646), (78, 24673), (84, 24739), (90, 24817), (93, 24865), (94, 24877), (96, 24919),

Gene: Lawnathon_32 Start: 21500, Stop: 22753, Start Num: 3

Candidate Starts for Lawnathon_32:

(Start: 3 @21500 has 23 MA's), (11, 21668), (20, 21827), (23, 21878), (39, 22061), (51, 22172), (55, 22244), (57, 22259), (63, 22331), (65, 22367), (73, 22433), (76, 22457), (78, 22484), (84, 22550), (90, 22628), (93, 22676), (94, 22688), (96, 22730),

Gene: Lenoxika_32 Start: 23339, Stop: 24592, Start Num: 3

Candidate Starts for Lenoxika_32:

(Start: 3 @23339 has 23 MA's), (11, 23507), (20, 23666), (23, 23717), (39, 23900), (51, 24011), (55, 24083), (57, 24098), (63, 24170), (65, 24206), (73, 24272), (76, 24296), (78, 24323), (84, 24389), (90, 24467), (93, 24515), (94, 24527), (96, 24569),

Gene: MUWow_31 Start: 21664, Stop: 22917, Start Num: 3

Candidate Starts for MUWow_31:

(Start: 3 @21664 has 23 MA's), (11, 21832), (20, 21991), (23, 22042), (39, 22225), (51, 22336), (55, 22408), (57, 22423), (63, 22495), (65, 22531), (73, 22597), (76, 22621), (78, 22648), (84, 22714), (90, 22792), (93, 22840), (94, 22852), (96, 22894),

Gene: MaterMagnus_32 Start: 21647, Stop: 22900, Start Num: 3

Candidate Starts for MaterMagnus_32:

(Start: 3 @21647 has 23 MA's), (11, 21815), (20, 21974), (23, 22025), (39, 22208), (51, 22319), (55, 22391), (57, 22406), (63, 22478), (65, 22514), (73, 22580), (76, 22604), (78, 22631), (84, 22697), (90, 22775), (93, 22823), (94, 22835), (96, 22877),

Gene: Mbo2_33 Start: 32558, Stop: 33970, Start Num: 2

Candidate Starts for Mbo2_33:

(2, 32558), (4, 32582), (12, 32801), (14, 32825), (17, 32882), (24, 32969), (25, 32978), (30, 33017), (31, 33035), (32, 33041), (35, 33071), (45, 33224), (47, 33245), (49, 33266), (50, 33272), (53, 33356), (56, 33395), (59, 33428), (64, 33497), (67, 33539), (68, 33548), (69, 33566), (70, 33569), (74, 33602), (75, 33617), (78, 33659), (82, 33707), (85, 33755), (87, 33800), (88, 33809), (91, 33869), (98, 33959),

Gene: MidnightRain_32 Start: 21636, Stop: 22889, Start Num: 3

Candidate Starts for MidnightRain_32:

(Start: 3 @21636 has 23 MA's), (11, 21804), (20, 21963), (23, 22014), (39, 22197), (51, 22308), (55, 22380), (57, 22395), (63, 22467), (65, 22503), (73, 22569), (76, 22593), (78, 22620), (84, 22686), (90, 22764), (93, 22812), (94, 22824), (96, 22866),

Gene: Nandita_32 Start: 23343, Stop: 24596, Start Num: 3

Candidate Starts for Nandita_32:

(Start: 3 @23343 has 23 MA's), (11, 23511), (20, 23670), (23, 23721), (39, 23904), (51, 24015), (55, 24087), (57, 24102), (63, 24174), (65, 24210), (73, 24276), (76, 24300), (78, 24327), (84, 24393), (90, 24471), (93, 24519), (94, 24531), (96, 24573),

Gene: PeggyLeg03_30 Start: 21943, Stop: 23196, Start Num: 3

Candidate Starts for PeggyLeg03_30:

(Start: 3 @21943 has 23 MA's), (11, 22111), (20, 22270), (23, 22321), (39, 22504), (51, 22615), (55, 22687), (57, 22702), (63, 22774), (65, 22810), (73, 22876), (76, 22900), (78, 22927), (84, 22993), (90, 23071), (93, 23119), (94, 23131), (96, 23173),

Gene: Popper_30 Start: 23256, Stop: 24509, Start Num: 3

Candidate Starts for Popper_30:

(Start: 3 @23256 has 23 MA's), (11, 23424), (20, 23583), (23, 23634), (39, 23817), (51, 23928), (55, 24000), (57, 24015), (63, 24087), (65, 24123), (73, 24189), (76, 24213), (78, 24240), (84, 24306), (90, 24384), (93, 24432), (94, 24444), (96, 24486),

Gene: QuinnAvery_32 Start: 23433, Stop: 24686, Start Num: 3

Candidate Starts for QuinnAvery_32:

(Start: 3 @23433 has 23 MA's), (11, 23601), (20, 23760), (23, 23811), (39, 23994), (51, 24105), (55, 24177), (57, 24192), (63, 24264), (65, 24300), (73, 24366), (76, 24390), (78, 24417), (84, 24483), (90, 24561), (93, 24609), (94, 24621), (96, 24663),

Gene: RadFad_32 Start: 21637, Stop: 22890, Start Num: 3

Candidate Starts for RadFad_32:

(Start: 3 @21637 has 23 MA's), (11, 21805), (20, 21964), (23, 22015), (39, 22198), (51, 22309), (55, 22381), (57, 22396), (63, 22468), (65, 22504), (73, 22570), (76, 22594), (78, 22621), (84, 22687), (90, 22765), (93, 22813), (94, 22825), (96, 22867),

Gene: Raphaella_32 Start: 21571, Stop: 22824, Start Num: 3

Candidate Starts for Raphaella_32:

(Start: 3 @21571 has 23 MA's), (11, 21739), (20, 21898), (23, 21949), (39, 22132), (51, 22243), (55, 22315), (57, 22330), (63, 22402), (65, 22438), (73, 22504), (76, 22528), (78, 22555), (84, 22621), (90,

22699), (93, 22747), (94, 22759), (96, 22801),

Gene: Richie_32 Start: 21652, Stop: 22905, Start Num: 3

Candidate Starts for Richie_32:

(Start: 3 @21652 has 23 MA's), (11, 21820), (20, 21979), (23, 22030), (39, 22213), (51, 22324), (55, 22396), (57, 22411), (63, 22483), (65, 22519), (73, 22585), (76, 22609), (78, 22636), (84, 22702), (90, 22780), (93, 22828), (94, 22840), (96, 22882),

Gene: Ryan_32 Start: 23954, Stop: 25207, Start Num: 3

Candidate Starts for Ryan_32:

(Start: 3 @23954 has 23 MA's), (11, 24122), (20, 24281), (23, 24332), (39, 24515), (51, 24626), (55, 24698), (57, 24713), (63, 24785), (65, 24821), (73, 24887), (76, 24911), (78, 24938), (84, 25004), (90, 25082), (93, 25130), (94, 25142), (96, 25184),

Gene: Sakai_32 Start: 21580, Stop: 22833, Start Num: 3

Candidate Starts for Sakai_32:

(Start: 3 @21580 has 23 MA's), (11, 21748), (20, 21907), (23, 21958), (39, 22141), (51, 22252), (55, 22324), (57, 22339), (63, 22411), (65, 22447), (73, 22513), (76, 22537), (78, 22564), (84, 22630), (90, 22708), (93, 22756), (94, 22768), (96, 22810),

Gene: Schism_32 Start: 23343, Stop: 24596, Start Num: 3

Candidate Starts for Schism_32:

(Start: 3 @23343 has 23 MA's), (11, 23511), (20, 23670), (23, 23721), (39, 23904), (51, 24015), (55, 24087), (57, 24102), (63, 24174), (65, 24210), (73, 24276), (76, 24300), (78, 24327), (84, 24393), (90, 24471), (93, 24519), (94, 24531), (96, 24573),

Gene: Sekhmet_30 Start: 24517, Stop: 25656, Start Num: 9

Candidate Starts for Sekhmet_30:

(1, 24145), (5, 24379), (Start: 9 @24517 has 3 MA's), (15, 24607), (16, 24646), (19, 24676), (21, 24721), (28, 24760), (33, 24808), (34, 24814), (37, 24859), (44, 24952), (46, 24967), (58, 25123), (60, 25153), (66, 25231), (71, 25282), (78, 25357), (83, 25408), (89, 25507), (92, 25561), (96, 25621),

Gene: Shukran_32 Start: 21746, Stop: 22999, Start Num: 3

Candidate Starts for Shukran_32:

(Start: 3 @21746 has 23 MA's), (11, 21914), (20, 22073), (23, 22124), (39, 22307), (51, 22418), (55, 22490), (57, 22505), (63, 22577), (65, 22613), (73, 22679), (76, 22703), (78, 22730), (84, 22796), (90, 22874), (93, 22922), (94, 22934), (96, 22976),

Gene: SpicyFrank_32 Start: 21872, Stop: 23125, Start Num: 3

Candidate Starts for SpicyFrank_32:

(Start: 3 @21872 has 23 MA's), (11, 22040), (20, 22199), (23, 22250), (39, 22433), (51, 22544), (55, 22616), (57, 22631), (63, 22703), (65, 22739), (73, 22805), (76, 22829), (78, 22856), (84, 22922), (90, 23000), (93, 23048), (94, 23060), (96, 23102),

Gene: ThayneTheZag_32 Start: 21791, Stop: 23044, Start Num: 3

Candidate Starts for ThayneTheZag_32:

(Start: 3 @21791 has 23 MA's), (11, 21959), (20, 22118), (23, 22169), (39, 22352), (51, 22463), (55, 22535), (57, 22550), (63, 22622), (65, 22658), (73, 22724), (76, 22748), (78, 22775), (84, 22841), (90, 22919), (93, 22967), (94, 22979), (96, 23021),

Gene: WinkNick_30 Start: 24139, Stop: 25278, Start Num: 9

Candidate Starts for WinkNick_30:

(Start: 9 @24139 has 3 MA's), (15, 24229), (16, 24268), (19, 24298), (21, 24343), (28, 24382), (33, 24430), (34, 24436), (37, 24481), (44, 24574), (46, 24589), (58, 24745), (60, 24775), (66, 24853), (71, 24904), (78, 24979), (83, 25030), (89, 25129), (92, 25183), (96, 25243),

Gene: YoungHarleezy_32 Start: 21650, Stop: 22903, Start Num: 3

Candidate Starts for YoungHarleezy_32:

(Start: 3 @21650 has 23 MA's), (11, 21818), (20, 21977), (23, 22028), (39, 22211), (51, 22322), (55, 22394), (57, 22409), (63, 22481), (65, 22517), (73, 22583), (76, 22607), (78, 22634), (84, 22700), (90, 22778), (93, 22826), (94, 22838), (96, 22880),

Gene: Zaheer_32 Start: 24043, Stop: 25296, Start Num: 3

Candidate Starts for Zaheer_32:

(Start: 3 @24043 has 23 MA's), (11, 24211), (20, 24370), (23, 24421), (39, 24604), (51, 24715), (55, 24787), (57, 24802), (63, 24874), (65, 24910), (73, 24976), (76, 25000), (78, 25027), (84, 25093), (90, 25171), (93, 25219), (94, 25231), (96, 25273),