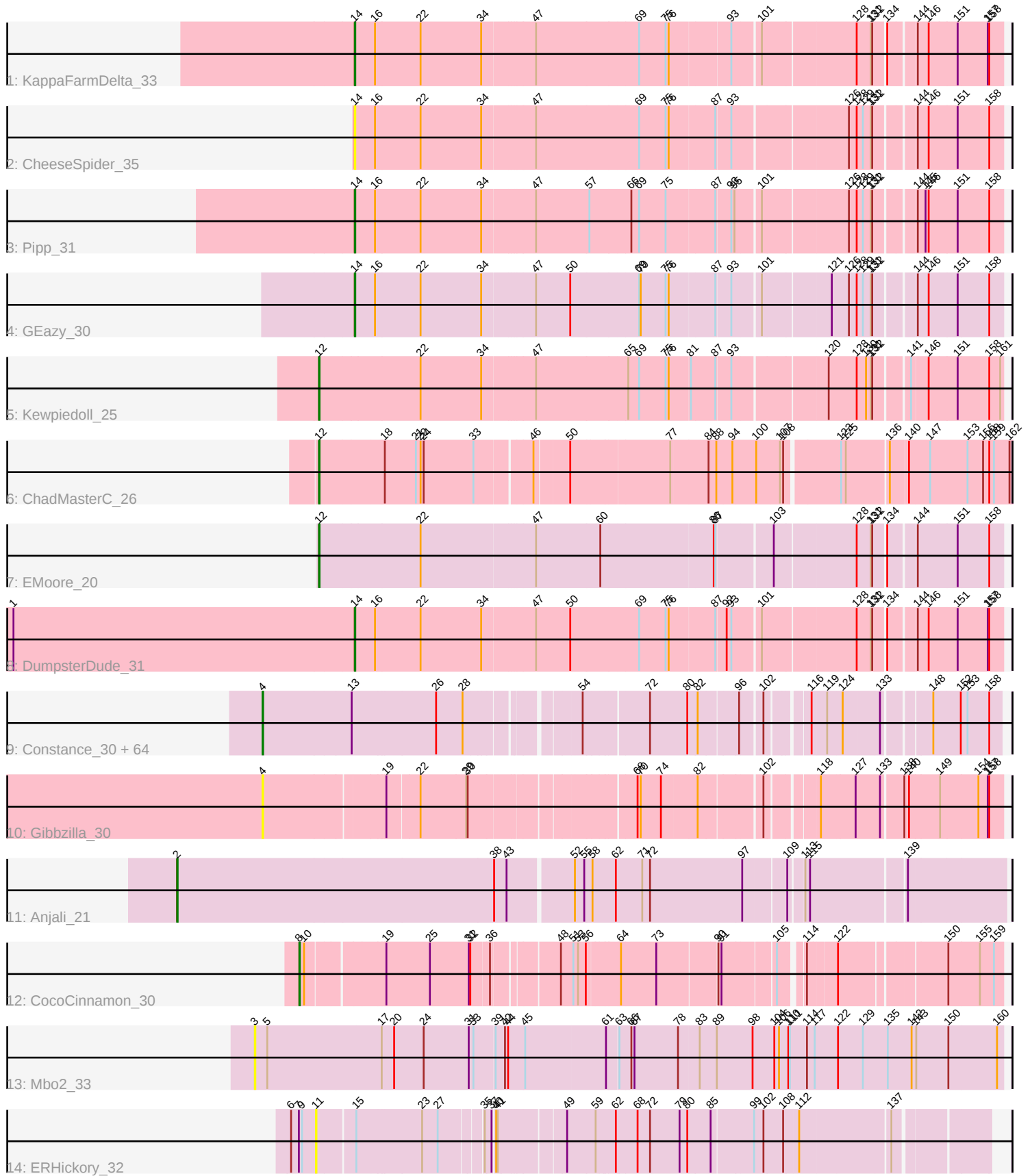


Pham 280369



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 280369 Report

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

Pham number 280369 has 78 members, 28 are drafts.

Phages represented in each track:

- Track 1 : KappaFarmDelta_33
- Track 2 : CheeseSpider_35
- Track 3 : Pipp_31
- Track 4 : GEazy_30
- Track 5 : Kewpiedoll_25
- Track 6 : ChadMasterC_26
- Track 7 : EMoore_20
- Track 8 : DumpsterDude_31
- Track 9 : Constance_30, Isolde_32, DarwinJr_35, PeggyLeg03_30, GumGum_32, BlueShadow_32, RadFad_32, Ichiang_30, Henrique_31, Shukran_32, KayMoney_31, HalloweenWeekend_30, Yonex_32, MaterMagnus_32, MidnightRain_32, Hestia_32, ThayneTheZag_32, Hillester_32, Ryan_32, Mapleville_32, Popper_30, NikkiHotWheels_32, Kihatsu_33, Raphaella_32, Bauer_28, Kabloowy_32, MUWow_31, BigSherm_31, GlobiWarming_31, Sakai_32, BlackSpider_27, Richie_32, Sporco_33, BenchScraper_32, ToastyOats_35, Zaheer_32, DirtDigger_32, FosterFrank_31, CookieBear_32, Gusanita_30, Satrap_32, Guinevere_32, Judy_31, Cole_30, Lenoxika_32, Toodles_33, Schism_32, Lawnathon_32, BellaJr_29, SonDevVon_31, Nandita_32, Karkharias_30, MillySue_32, QuinnAvery_32, LilyBell_30, YoungHarleezy_32, BasketStar_32, Donatella_31, CosmicBrownie_32, Lasker_32, ChuckDuck_31, SpicyFrank_32, Globfish_32, Bridgette_30, GoodLuckBabe_32
- Track 10 : Gibbzilla_30
- Track 11 : Anjali_21
- Track 12 : CocoCinnamon_30
- Track 13 : Mbo2_33
- Track 14 : ERHickory_32

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

The start number called the most often in the published annotations is 4, it was called in 41 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BasketStar_32, Bauer_28, BellaJr_29, BenchScraper_32, BigSherm_31, BlackSpider_27, BlueShadow_32, Bridgette_30, ChuckDuck_31, Cole_30, Constance_30, CookieBear_32, CosmicBrownie_32, DarwinJr_35, DirtDigger_32, Donatella_31, FosterFrank_31, Gibbzilla_30, Globfish_32, GlobiWarming_31, GoodLuckBabe_32, Guinevere_32, GumGum_32, Gusanita_30, Halloweekend_30, Henrique_31, Hestia_32, Hillester_32, Ichiang_30, Isolde_32, Judy_31, Kabloowy_32, Karkharias_30, KayMoney_31, Kihatsu_33, Lasker_32, Lawnathon_32, Lenoxika_32, LilyBell_30, MUWow_31, Mapleville_32, MaterMagnus_32, MidnightRain_32, MillySue_32, Nandita_32, NikkiHotWheels_32, PeggyLeg03_30, Popper_30, QuinnAvery_32, RadFad_32, Raphaella_32, Richie_32, Ryan_32, Sakai_32, Satrap_32, Schism_32, Shukran_32, SonDevVon_31, SpicyFrank_32, Sporco_33, ThayneTheZag_32, ToastyOats_35, Toodles_33, Yonex_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:

- Anjali_21, ChadMasterC_26, CheeseSpider_35, CocoCinnamon_30, DumpsterDude_31, EMOore_20, ERHickory_32, GEazy_30, KappaFarmDelta_33, Kewpiedoll_25, Mbo2_33, Pipp_31,

Summary by start number:

Start 2:

- Found in 1 of 78 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anjali_21 (FD),

Start 3:

- Found in 1 of 78 (1.3%) 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 4:

- Found in 66 of 78 (84.6%) of genes in pham
- Manual Annotations of this start: 41 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BasketStar_32 (AY), Bauer_28 (FN), BellaJr_29 (FN), BenchScraper_32 (AY), BigSherm_31 (FF), BlackSpider_27 (FN), BlueShadow_32 (AY), Bridgette_30 (FA), ChuckDuck_31 (FA), Cole_30 (FF), Constance_30 (FA), CookieBear_32 (AY), CosmicBrownie_32 (AY), DarwinJr_35 (AY), DirtDigger_32 (FF), Donatella_31 (FF), FosterFrank_31 (FA), Gibbzilla_30 (FB), Globfish_32 (AY), GlobiWarming_31 (FA), GoodLuckBabe_32 (FF), Guinevere_32 (FF), GumGum_32 (AY), Gusanita_30 (FF), Halloweekend_30 (FF), Henrique_31 (FA), Hestia_32 (AY), Hillester_32 (AY), Ichiang_30 (FF), Isolde_32 (AY), Judy_31 (FA), Kabloowy_32 (AY), Karkharias_30 (FA), KayMoney_31 (FA), Kihatsu_33 (FF), Lasker_32 (AY), Lawnathon_32 (AY), Lenoxika_32 (FF), LilyBell_30 (FA), MUWow_31 (AY), Mapleville_32 (AY), MaterMagnus_32 (AY), MidnightRain_32 (AY), MillySue_32 (FF), Nandita_32 (FF), NikkiHotWheels_32 (FA), PeggyLeg03_30 (FA), Popper_30 (FF), QuinnAvery_32 (FF), RadFad_32 (AY), Raphaella_32 (AY),

Richie_32 (AY), Ryan_32 (FF), Sakai_32 (AY), Satrap_32 (AY), Schism_32 (FF), Shukran_32 (AY), SonDevVon_31 (AY), SpicyFrank_32 (AY), Sporco_33 (AY), ThayneTheZag_32 (AY), ToastyOats_35 (FF), Toodles_33 (FF), Yonex_32 (FF), YoungHarleezy_32 (AY), Zaheer_32 (FF),

Start 8:

- Found in 1 of 78 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CocoCinnamon_30 (FO),

Start 11:

- Found in 1 of 78 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ERHickory_32 (singleton),

Start 12:

- Found in 3 of 78 (3.8%) of genes in pham
- Manual Annotations of this start: 3 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChadMasterC_26 (DE1), EMoore_20 (DE2), Kewpiedoll_25 (DE1),

Start 14:

- Found in 5 of 78 (6.4%) of genes in pham
- Manual Annotations of this start: 4 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CheeseSpider_35 (CV), DumpsterDude_31 (DW), GEazy_30 (DB), KappaFarmDelta_33 (CV), Pipp_31 (CV),

Summary by clusters:

There are 13 clusters represented in this pham: singleton, DE1, DE2, DB, FA, FB, FD, FF, AY, DW, CV, FN, FO,

Info for manual annotations of cluster AY:

- Start number 4 was manually annotated 18 times for cluster AY.

Info for manual annotations of cluster CV:

- Start number 14 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster DB:

- Start number 14 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DE1:

- Start number 12 was manually annotated 2 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 12 was manually annotated 1 time for cluster DE2.

Info for manual annotations of cluster DW:

- Start number 14 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster FA:

- Start number 4 was manually annotated 8 times for cluster FA.

Info for manual annotations of cluster FD:

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

Info for manual annotations of cluster FF:

- Start number 4 was manually annotated 13 times for cluster FF.

Info for manual annotations of cluster FN:

- Start number 4 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster FO:

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

Gene Information:

Gene: Anjali_21 Start: 16366, Stop: 17904, Start Num: 2

Candidate Starts for Anjali_21:

(Start: 2 @16366 has 1 MA's), (38, 16972), (43, 16996), (52, 17116), (55, 17134), (58, 17149), (62, 17194), (71, 17245), (72, 17260), (97, 17437), (109, 17515), (113, 17539), (115, 17548), (139, 17722),

Gene: BasketStar_32 Start: 21691, Stop: 22944, Start Num: 4

Candidate Starts for BasketStar_32:

(Start: 4 @21691 has 41 MA's), (13, 21859), (26, 22018), (28, 22069), (54, 22252), (72, 22363), (80, 22435), (82, 22450), (96, 22522), (102, 22558), (116, 22624), (119, 22648), (124, 22675), (133, 22741), (148, 22819), (152, 22867), (153, 22879), (158, 22921),

Gene: Bauer_28 Start: 21209, Stop: 22462, Start Num: 4

Candidate Starts for Bauer_28:

(Start: 4 @21209 has 41 MA's), (13, 21377), (26, 21536), (28, 21587), (54, 21770), (72, 21881), (80, 21953), (82, 21968), (96, 22040), (102, 22076), (116, 22142), (119, 22166), (124, 22193), (133, 22259), (148, 22337), (152, 22385), (153, 22397), (158, 22439),

Gene: BellaJr_29 Start: 22187, Stop: 23440, Start Num: 4

Candidate Starts for BellaJr_29:

(Start: 4 @22187 has 41 MA's), (13, 22355), (26, 22514), (28, 22565), (54, 22748), (72, 22859), (80, 22931), (82, 22946), (96, 23018), (102, 23054), (116, 23120), (119, 23144), (124, 23171), (133, 23237), (148, 23315), (152, 23363), (153, 23375), (158, 23417),

Gene: BenchScraper_32 Start: 21652, Stop: 22905, Start Num: 4

Candidate Starts for BenchScraper_32:

(Start: 4 @21652 has 41 MA's), (13, 21820), (26, 21979), (28, 22030), (54, 22213), (72, 22324), (80, 22396), (82, 22411), (96, 22483), (102, 22519), (116, 22585), (119, 22609), (124, 22636), (133, 22702), (148, 22780), (152, 22828), (153, 22840), (158, 22882),

Gene: BigSherm_31 Start: 23424, Stop: 24677, Start Num: 4

Candidate Starts for BigSherm_31:

(Start: 4 @23424 has 41 MA's), (13, 23592), (26, 23751), (28, 23802), (54, 23985), (72, 24096), (80, 24168), (82, 24183), (96, 24255), (102, 24291), (116, 24357), (119, 24381), (124, 24408), (133, 24474), (148, 24552), (152, 24600), (153, 24612), (158, 24654),

Gene: BlackSpider_27 Start: 21099, Stop: 22352, Start Num: 4

Candidate Starts for BlackSpider_27:

(Start: 4 @21099 has 41 MA's), (13, 21267), (26, 21426), (28, 21477), (54, 21660), (72, 21771), (80, 21843), (82, 21858), (96, 21930), (102, 21966), (116, 22032), (119, 22056), (124, 22083), (133, 22149), (148, 22227), (152, 22275), (153, 22287), (158, 22329),

Gene: BlueShadow_32 Start: 21637, Stop: 22890, Start Num: 4

Candidate Starts for BlueShadow_32:

(Start: 4 @21637 has 41 MA's), (13, 21805), (26, 21964), (28, 22015), (54, 22198), (72, 22309), (80, 22381), (82, 22396), (96, 22468), (102, 22504), (116, 22570), (119, 22594), (124, 22621), (133, 22687), (148, 22765), (152, 22813), (153, 22825), (158, 22867),

Gene: Bridgette_30 Start: 21703, Stop: 22956, Start Num: 4

Candidate Starts for Bridgette_30:

(Start: 4 @21703 has 41 MA's), (13, 21871), (26, 22030), (28, 22081), (54, 22264), (72, 22375), (80, 22447), (82, 22462), (96, 22534), (102, 22570), (116, 22636), (119, 22660), (124, 22687), (133, 22753), (148, 22831), (152, 22879), (153, 22891), (158, 22933),

Gene: ChadMasterC_26 Start: 20791, Stop: 22044, Start Num: 12

Candidate Starts for ChadMasterC_26:

(Start: 12 @20791 has 3 MA's), (18, 20908), (21, 20968), (22, 20977), (24, 20983), (33, 21079), (46, 21178), (50, 21241), (77, 21421), (84, 21490), (88, 21505), (94, 21535), (100, 21577), (107, 21622), (108, 21628), (123, 21727), (125, 21736), (136, 21814), (140, 21847), (147, 21886), (153, 21958), (156, 21988), (158, 22000), (159, 22009), (162, 22039),

Gene: CheeseSpider_35 Start: 26082, Stop: 27251, Start Num: 14

Candidate Starts for CheeseSpider_35:

(Start: 14 @26082 has 4 MA's), (16, 26121), (22, 26208), (34, 26325), (47, 26418), (69, 26610), (75, 26661), (76, 26667), (87, 26751), (93, 26778), (126, 26982), (128, 26997), (129, 27009), (131, 27024), (132, 27027), (144, 27090), (146, 27111), (151, 27165), (158, 27225),

Gene: ChuckDuck_31 Start: 21471, Stop: 22724, Start Num: 4

Candidate Starts for ChuckDuck_31:

(Start: 4 @21471 has 41 MA's), (13, 21639), (26, 21798), (28, 21849), (54, 22032), (72, 22143), (80, 22215), (82, 22230), (96, 22302), (102, 22338), (116, 22404), (119, 22428), (124, 22455), (133, 22521), (148, 22599), (152, 22647), (153, 22659), (158, 22701),

Gene: CocoCinnamon_30 Start: 21380, Stop: 22567, Start Num: 8

Candidate Starts for CocoCinnamon_30:

(Start: 8 @21380 has 1 MA's), (10, 21389), (19, 21524), (25, 21608), (31, 21683), (32, 21686), (36, 21719), (48, 21830), (51, 21854), (53, 21860), (56, 21875), (64, 21929), (73, 21995), (90, 22103), (91, 22109), (105, 22199), (114, 22235), (122, 22283), (150, 22466), (155, 22523), (159, 22550),

Gene: Cole_30 Start: 23171, Stop: 24424, Start Num: 4

Candidate Starts for Cole_30:

(Start: 4 @23171 has 41 MA's), (13, 23339), (26, 23498), (28, 23549), (54, 23732), (72, 23843), (80, 23915), (82, 23930), (96, 24002), (102, 24038), (116, 24104), (119, 24128), (124, 24155), (133, 24221), (148, 24299), (152, 24347), (153, 24359), (158, 24401),

Gene: Constance_30 Start: 21943, Stop: 23196, Start Num: 4

Candidate Starts for Constance_30:

(Start: 4 @21943 has 41 MA's), (13, 22111), (26, 22270), (28, 22321), (54, 22504), (72, 22615), (80, 22687), (82, 22702), (96, 22774), (102, 22810), (116, 22876), (119, 22900), (124, 22927), (133, 22993), (148, 23071), (152, 23119), (153, 23131), (158, 23173),

Gene: CookieBear_32 Start: 21637, Stop: 22890, Start Num: 4

Candidate Starts for CookieBear_32:

(Start: 4 @21637 has 41 MA's), (13, 21805), (26, 21964), (28, 22015), (54, 22198), (72, 22309), (80, 22381), (82, 22396), (96, 22468), (102, 22504), (116, 22570), (119, 22594), (124, 22621), (133, 22687), (148, 22765), (152, 22813), (153, 22825), (158, 22867),

Gene: CosmicBrownie_32 Start: 21456, Stop: 22709, Start Num: 4

Candidate Starts for CosmicBrownie_32:

(Start: 4 @21456 has 41 MA's), (13, 21624), (26, 21783), (28, 21834), (54, 22017), (72, 22128), (80, 22200), (82, 22215), (96, 22287), (102, 22323), (116, 22389), (119, 22413), (124, 22440), (133, 22506), (148, 22584), (152, 22632), (153, 22644), (158, 22686),

Gene: DarwinJr_35 Start: 23048, Stop: 24301, Start Num: 4

Candidate Starts for DarwinJr_35:

(Start: 4 @23048 has 41 MA's), (13, 23216), (26, 23375), (28, 23426), (54, 23609), (72, 23720), (80, 23792), (82, 23807), (96, 23879), (102, 23915), (116, 23981), (119, 24005), (124, 24032), (133, 24098), (148, 24176), (152, 24224), (153, 24236), (158, 24278),

Gene: Dirtdigger_32 Start: 23245, Stop: 24498, Start Num: 4

Candidate Starts for Dirtdigger_32:

(Start: 4 @23245 has 41 MA's), (13, 23413), (26, 23572), (28, 23623), (54, 23806), (72, 23917), (80, 23989), (82, 24004), (96, 24076), (102, 24112), (116, 24178), (119, 24202), (124, 24229), (133, 24295), (148, 24373), (152, 24421), (153, 24433), (158, 24475),

Gene: Donatella_31 Start: 23635, Stop: 24888, Start Num: 4

Candidate Starts for Donatella_31:

(Start: 4 @23635 has 41 MA's), (13, 23803), (26, 23962), (28, 24013), (54, 24196), (72, 24307), (80, 24379), (82, 24394), (96, 24466), (102, 24502), (116, 24568), (119, 24592), (124, 24619), (133, 24685), (148, 24763), (152, 24811), (153, 24823), (158, 24865),

Gene: DumpsterDude_31 Start: 27356, Stop: 28525, Start Num: 14

Candidate Starts for DumpsterDude_31:

(1, 26702), (Start: 14 @27356 has 4 MA's), (16, 27395), (22, 27482), (34, 27599), (47, 27692), (50, 27758), (69, 27884), (75, 27935), (76, 27941), (87, 28025), (92, 28043), (93, 28052), (101, 28100), (128, 28271), (131, 28298), (132, 28301), (134, 28319), (144, 28364), (146, 28385), (151, 28439), (157, 28496), (158, 28499),

Gene: EMoore_20 Start: 17259, Stop: 18491, Start Num: 12

Candidate Starts for EMoore_20:

(Start: 12 @17259 has 3 MA's), (22, 17448), (47, 17658), (60, 17781), (86, 17988), (87, 17991), (103, 18087), (128, 18237), (131, 18264), (132, 18267), (134, 18285), (144, 18330), (151, 18405), (158, 18465),

Gene: ERHickory_32 Start: 13609, Stop: 14778, Start Num: 11

Candidate Starts for ERHickory_32:

(6, 13561), (7, 13576), (9, 13582), (11, 13609), (15, 13678), (23, 13798), (27, 13828), (35, 13903), (37, 13915), (40, 13918), (41, 13921), (49, 14035), (59, 14086), (62, 14119), (68, 14155), (72, 14179), (79,

14236), (80, 14251), (85, 14293), (99, 14368), (102, 14386), (108, 14422), (112, 14449), (137, 14611),

Gene: FosterFrank_31 Start: 21545, Stop: 22798, Start Num: 4

Candidate Starts for FosterFrank_31:

(Start: 4 @21545 has 41 MA's), (13, 21713), (26, 21872), (28, 21923), (54, 22106), (72, 22217), (80, 22289), (82, 22304), (96, 22376), (102, 22412), (116, 22478), (119, 22502), (124, 22529), (133, 22595), (148, 22673), (152, 22721), (153, 22733), (158, 22775),

Gene: GEazy_30 Start: 24987, Stop: 26156, Start Num: 14

Candidate Starts for GEazy_30:

(Start: 14 @24987 has 4 MA's), (16, 25026), (22, 25113), (34, 25230), (47, 25323), (50, 25389), (69, 25515), (70, 25518), (75, 25566), (76, 25572), (87, 25656), (93, 25683), (101, 25731), (121, 25854), (126, 25887), (128, 25902), (129, 25914), (131, 25929), (132, 25932), (144, 25995), (146, 26016), (151, 26070), (158, 26130),

Gene: Gibbzilla_30 Start: 19645, Stop: 20925, Start Num: 4

Candidate Starts for Gibbzilla_30:

(Start: 4 @19645 has 41 MA's), (19, 19867), (22, 19927), (29, 20014), (30, 20017), (68, 20296), (70, 20302), (74, 20341), (82, 20407), (102, 20515), (118, 20599), (127, 20659), (133, 20701), (138, 20740), (140, 20749), (149, 20806), (154, 20878), (157, 20896), (158, 20899),

Gene: Globfish_32 Start: 21871, Stop: 23124, Start Num: 4

Candidate Starts for Globfish_32:

(Start: 4 @21871 has 41 MA's), (13, 22039), (26, 22198), (28, 22249), (54, 22432), (72, 22543), (80, 22615), (82, 22630), (96, 22702), (102, 22738), (116, 22804), (119, 22828), (124, 22855), (133, 22921), (148, 22999), (152, 23047), (153, 23059), (158, 23101),

Gene: GlobiWarming_31 Start: 21386, Stop: 22639, Start Num: 4

Candidate Starts for GlobiWarming_31:

(Start: 4 @21386 has 41 MA's), (13, 21554), (26, 21713), (28, 21764), (54, 21947), (72, 22058), (80, 22130), (82, 22145), (96, 22217), (102, 22253), (116, 22319), (119, 22343), (124, 22370), (133, 22436), (148, 22514), (152, 22562), (153, 22574), (158, 22616),

Gene: GoodLuckBabe_32 Start: 23753, Stop: 25006, Start Num: 4

Candidate Starts for GoodLuckBabe_32:

(Start: 4 @23753 has 41 MA's), (13, 23921), (26, 24080), (28, 24131), (54, 24314), (72, 24425), (80, 24497), (82, 24512), (96, 24584), (102, 24620), (116, 24686), (119, 24710), (124, 24737), (133, 24803), (148, 24881), (152, 24929), (153, 24941), (158, 24983),

Gene: Guinevere_32 Start: 23343, Stop: 24596, Start Num: 4

Candidate Starts for Guinevere_32:

(Start: 4 @23343 has 41 MA's), (13, 23511), (26, 23670), (28, 23721), (54, 23904), (72, 24015), (80, 24087), (82, 24102), (96, 24174), (102, 24210), (116, 24276), (119, 24300), (124, 24327), (133, 24393), (148, 24471), (152, 24519), (153, 24531), (158, 24573),

Gene: GumGum_32 Start: 21800, Stop: 23053, Start Num: 4

Candidate Starts for GumGum_32:

(Start: 4 @21800 has 41 MA's), (13, 21968), (26, 22127), (28, 22178), (54, 22361), (72, 22472), (80, 22544), (82, 22559), (96, 22631), (102, 22667), (116, 22733), (119, 22757), (124, 22784), (133, 22850), (148, 22928), (152, 22976), (153, 22988), (158, 23030),

Gene: Gusanita_30 Start: 23106, Stop: 24359, Start Num: 4

Candidate Starts for Gusanita_30:

(Start: 4 @23106 has 41 MA's), (13, 23274), (26, 23433), (28, 23484), (54, 23667), (72, 23778), (80, 23850), (82, 23865), (96, 23937), (102, 23973), (116, 24039), (119, 24063), (124, 24090), (133, 24156), (148, 24234), (152, 24282), (153, 24294), (158, 24336),

Gene: Halloweekend_30 Start: 23050, Stop: 24303, Start Num: 4

Candidate Starts for Halloweekend_30:

(Start: 4 @23050 has 41 MA's), (13, 23218), (26, 23377), (28, 23428), (54, 23611), (72, 23722), (80, 23794), (82, 23809), (96, 23881), (102, 23917), (116, 23983), (119, 24007), (124, 24034), (133, 24100), (148, 24178), (152, 24226), (153, 24238), (158, 24280),

Gene: Henrique_31 Start: 21414, Stop: 22667, Start Num: 4

Candidate Starts for Henrique_31:

(Start: 4 @21414 has 41 MA's), (13, 21582), (26, 21741), (28, 21792), (54, 21975), (72, 22086), (80, 22158), (82, 22173), (96, 22245), (102, 22281), (116, 22347), (119, 22371), (124, 22398), (133, 22464), (148, 22542), (152, 22590), (153, 22602), (158, 22644),

Gene: Hestia_32 Start: 21676, Stop: 22929, Start Num: 4

Candidate Starts for Hestia_32:

(Start: 4 @21676 has 41 MA's), (13, 21844), (26, 22003), (28, 22054), (54, 22237), (72, 22348), (80, 22420), (82, 22435), (96, 22507), (102, 22543), (116, 22609), (119, 22633), (124, 22660), (133, 22726), (148, 22804), (152, 22852), (153, 22864), (158, 22906),

Gene: Hillester_32 Start: 21637, Stop: 22890, Start Num: 4

Candidate Starts for Hillester_32:

(Start: 4 @21637 has 41 MA's), (13, 21805), (26, 21964), (28, 22015), (54, 22198), (72, 22309), (80, 22381), (82, 22396), (96, 22468), (102, 22504), (116, 22570), (119, 22594), (124, 22621), (133, 22687), (148, 22765), (152, 22813), (153, 22825), (158, 22867),

Gene: Ichiang_30 Start: 23069, Stop: 24322, Start Num: 4

Candidate Starts for Ichiang_30:

(Start: 4 @23069 has 41 MA's), (13, 23237), (26, 23396), (28, 23447), (54, 23630), (72, 23741), (80, 23813), (82, 23828), (96, 23900), (102, 23936), (116, 24002), (119, 24026), (124, 24053), (133, 24119), (148, 24197), (152, 24245), (153, 24257), (158, 24299),

Gene: Isolde_32 Start: 21406, Stop: 22659, Start Num: 4

Candidate Starts for Isolde_32:

(Start: 4 @21406 has 41 MA's), (13, 21574), (26, 21733), (28, 21784), (54, 21967), (72, 22078), (80, 22150), (82, 22165), (96, 22237), (102, 22273), (116, 22339), (119, 22363), (124, 22390), (133, 22456), (148, 22534), (152, 22582), (153, 22594), (158, 22636),

Gene: Judy_31 Start: 21954, Stop: 23207, Start Num: 4

Candidate Starts for Judy_31:

(Start: 4 @21954 has 41 MA's), (13, 22122), (26, 22281), (28, 22332), (54, 22515), (72, 22626), (80, 22698), (82, 22713), (96, 22785), (102, 22821), (116, 22887), (119, 22911), (124, 22938), (133, 23004), (148, 23082), (152, 23130), (153, 23142), (158, 23184),

Gene: Kabloowy_32 Start: 21817, Stop: 23070, Start Num: 4

Candidate Starts for Kabloowy_32:

(Start: 4 @21817 has 41 MA's), (13, 21985), (26, 22144), (28, 22195), (54, 22378), (72, 22489), (80, 22561), (82, 22576), (96, 22648), (102, 22684), (116, 22750), (119, 22774), (124, 22801), (133, 22867), (148, 22945), (152, 22993), (153, 23005), (158, 23047),

Gene: KappaFarmDelta_33 Start: 25961, Stop: 27130, Start Num: 14

Candidate Starts for KappaFarmDelta_33:

(Start: 14 @25961 has 4 MA's), (16, 26000), (22, 26087), (34, 26204), (47, 26297), (69, 26489), (75, 26540), (76, 26546), (93, 26657), (101, 26705), (128, 26876), (131, 26903), (132, 26906), (134, 26924), (144, 26969), (146, 26990), (151, 27044), (157, 27101), (158, 27104),

Gene: Karkharias_30 Start: 21331, Stop: 22584, Start Num: 4

Candidate Starts for Karkharias_30:

(Start: 4 @21331 has 41 MA's), (13, 21499), (26, 21658), (28, 21709), (54, 21892), (72, 22003), (80, 22075), (82, 22090), (96, 22162), (102, 22198), (116, 22264), (119, 22288), (124, 22315), (133, 22381), (148, 22459), (152, 22507), (153, 22519), (158, 22561),

Gene: KayMoney_31 Start: 21475, Stop: 22728, Start Num: 4

Candidate Starts for KayMoney_31:

(Start: 4 @21475 has 41 MA's), (13, 21643), (26, 21802), (28, 21853), (54, 22036), (72, 22147), (80, 22219), (82, 22234), (96, 22306), (102, 22342), (116, 22408), (119, 22432), (124, 22459), (133, 22525), (148, 22603), (152, 22651), (153, 22663), (158, 22705),

Gene: Kewpiedoll_25 Start: 19354, Stop: 20586, Start Num: 12

Candidate Starts for Kewpiedoll_25:

(Start: 12 @19354 has 3 MA's), (22, 19543), (34, 19660), (47, 19753), (65, 19924), (69, 19945), (75, 19996), (76, 20002), (81, 20041), (87, 20086), (93, 20113), (120, 20278), (128, 20332), (130, 20350), (131, 20359), (132, 20362), (141, 20416), (146, 20446), (151, 20500), (158, 20560), (161, 20581),

Gene: Kihatsu_33 Start: 23689, Stop: 24942, Start Num: 4

Candidate Starts for Kihatsu_33:

(Start: 4 @23689 has 41 MA's), (13, 23857), (26, 24016), (28, 24067), (54, 24250), (72, 24361), (80, 24433), (82, 24448), (96, 24520), (102, 24556), (116, 24622), (119, 24646), (124, 24673), (133, 24739), (148, 24817), (152, 24865), (153, 24877), (158, 24919),

Gene: Lasker_32 Start: 21645, Stop: 22898, Start Num: 4

Candidate Starts for Lasker_32:

(Start: 4 @21645 has 41 MA's), (13, 21813), (26, 21972), (28, 22023), (54, 22206), (72, 22317), (80, 22389), (82, 22404), (96, 22476), (102, 22512), (116, 22578), (119, 22602), (124, 22629), (133, 22695), (148, 22773), (152, 22821), (153, 22833), (158, 22875),

Gene: Lawnathon_32 Start: 21500, Stop: 22753, Start Num: 4

Candidate Starts for Lawnathon_32:

(Start: 4 @21500 has 41 MA's), (13, 21668), (26, 21827), (28, 21878), (54, 22061), (72, 22172), (80, 22244), (82, 22259), (96, 22331), (102, 22367), (116, 22433), (119, 22457), (124, 22484), (133, 22550), (148, 22628), (152, 22676), (153, 22688), (158, 22730),

Gene: Lenoxika_32 Start: 23339, Stop: 24592, Start Num: 4

Candidate Starts for Lenoxika_32:

(Start: 4 @23339 has 41 MA's), (13, 23507), (26, 23666), (28, 23717), (54, 23900), (72, 24011), (80, 24083), (82, 24098), (96, 24170), (102, 24206), (116, 24272), (119, 24296), (124, 24323), (133, 24389), (148, 24467), (152, 24515), (153, 24527), (158, 24569),

Gene: LilyBell_30 Start: 21343, Stop: 22596, Start Num: 4

Candidate Starts for LilyBell_30:

(Start: 4 @21343 has 41 MA's), (13, 21511), (26, 21670), (28, 21721), (54, 21904), (72, 22015), (80, 22087), (82, 22102), (96, 22174), (102, 22210), (116, 22276), (119, 22300), (124, 22327), (133, 22393), (148, 22471), (152, 22519), (153, 22531), (158, 22573),

Gene: MUWow_31 Start: 21664, Stop: 22917, Start Num: 4

Candidate Starts for MUWow_31:

(Start: 4 @21664 has 41 MA's), (13, 21832), (26, 21991), (28, 22042), (54, 22225), (72, 22336), (80, 22408), (82, 22423), (96, 22495), (102, 22531), (116, 22597), (119, 22621), (124, 22648), (133, 22714), (148, 22792), (152, 22840), (153, 22852), (158, 22894),

Gene: Mapleville_32 Start: 21570, Stop: 22823, Start Num: 4

Candidate Starts for Mapleville_32:

(Start: 4 @21570 has 41 MA's), (13, 21738), (26, 21897), (28, 21948), (54, 22131), (72, 22242), (80, 22314), (82, 22329), (96, 22401), (102, 22437), (116, 22503), (119, 22527), (124, 22554), (133, 22620), (148, 22698), (152, 22746), (153, 22758), (158, 22800),

Gene: MaterMagnus_32 Start: 21647, Stop: 22900, Start Num: 4

Candidate Starts for MaterMagnus_32:

(Start: 4 @21647 has 41 MA's), (13, 21815), (26, 21974), (28, 22025), (54, 22208), (72, 22319), (80, 22391), (82, 22406), (96, 22478), (102, 22514), (116, 22580), (119, 22604), (124, 22631), (133, 22697), (148, 22775), (152, 22823), (153, 22835), (158, 22877),

Gene: Mbo2_33 Start: 32558, Stop: 33970, Start Num: 3

Candidate Starts for Mbo2_33:

(3, 32558), (5, 32582), (17, 32801), (20, 32825), (24, 32882), (31, 32969), (33, 32978), (39, 33017), (42, 33035), (44, 33041), (45, 33071), (61, 33224), (63, 33245), (66, 33266), (67, 33272), (78, 33356), (83, 33395), (89, 33428), (98, 33497), (104, 33539), (106, 33548), (110, 33566), (111, 33569), (114, 33602), (117, 33617), (122, 33659), (129, 33707), (135, 33755), (142, 33800), (143, 33809), (150, 33869), (160, 33959),

Gene: MidnightRain_32 Start: 21636, Stop: 22889, Start Num: 4

Candidate Starts for MidnightRain_32:

(Start: 4 @21636 has 41 MA's), (13, 21804), (26, 21963), (28, 22014), (54, 22197), (72, 22308), (80, 22380), (82, 22395), (96, 22467), (102, 22503), (116, 22569), (119, 22593), (124, 22620), (133, 22686), (148, 22764), (152, 22812), (153, 22824), (158, 22866),

Gene: MillySue_32 Start: 23252, Stop: 24505, Start Num: 4

Candidate Starts for MillySue_32:

(Start: 4 @23252 has 41 MA's), (13, 23420), (26, 23579), (28, 23630), (54, 23813), (72, 23924), (80, 23996), (82, 24011), (96, 24083), (102, 24119), (116, 24185), (119, 24209), (124, 24236), (133, 24302), (148, 24380), (152, 24428), (153, 24440), (158, 24482),

Gene: Nandita_32 Start: 23343, Stop: 24596, Start Num: 4

Candidate Starts for Nandita_32:

(Start: 4 @23343 has 41 MA's), (13, 23511), (26, 23670), (28, 23721), (54, 23904), (72, 24015), (80, 24087), (82, 24102), (96, 24174), (102, 24210), (116, 24276), (119, 24300), (124, 24327), (133, 24393), (148, 24471), (152, 24519), (153, 24531), (158, 24573),

Gene: NikkiHotWheels_32 Start: 21407, Stop: 22660, Start Num: 4

Candidate Starts for NikkiHotWheels_32:

(Start: 4 @21407 has 41 MA's), (13, 21575), (26, 21734), (28, 21785), (54, 21968), (72, 22079), (80, 22151), (82, 22166), (96, 22238), (102, 22274), (116, 22340), (119, 22364), (124, 22391), (133, 22457), (148, 22535), (152, 22583), (153, 22595), (158, 22637),

Gene: PeggyLeg03_30 Start: 21943, Stop: 23196, Start Num: 4

Candidate Starts for PeggyLeg03_30:

(Start: 4 @21943 has 41 MA's), (13, 22111), (26, 22270), (28, 22321), (54, 22504), (72, 22615), (80, 22687), (82, 22702), (96, 22774), (102, 22810), (116, 22876), (119, 22900), (124, 22927), (133, 22993), (148, 23071), (152, 23119), (153, 23131), (158, 23173),

Gene: Pipp_31 Start: 26106, Stop: 27275, Start Num: 14

Candidate Starts for Pipp_31:

(Start: 14 @26106 has 4 MA's), (16, 26145), (22, 26232), (34, 26349), (47, 26442), (57, 26544), (66, 26619), (69, 26634), (75, 26685), (87, 26775), (93, 26802), (95, 26808), (101, 26850), (126, 27006), (128, 27021), (129, 27033), (131, 27048), (132, 27051), (144, 27114), (145, 27129), (146, 27135), (151, 27189), (158, 27249),

Gene: Popper_30 Start: 23256, Stop: 24509, Start Num: 4

Candidate Starts for Popper_30:

(Start: 4 @23256 has 41 MA's), (13, 23424), (26, 23583), (28, 23634), (54, 23817), (72, 23928), (80, 24000), (82, 24015), (96, 24087), (102, 24123), (116, 24189), (119, 24213), (124, 24240), (133, 24306), (148, 24384), (152, 24432), (153, 24444), (158, 24486),

Gene: QuinnAvery_32 Start: 23433, Stop: 24686, Start Num: 4

Candidate Starts for QuinnAvery_32:

(Start: 4 @23433 has 41 MA's), (13, 23601), (26, 23760), (28, 23811), (54, 23994), (72, 24105), (80, 24177), (82, 24192), (96, 24264), (102, 24300), (116, 24366), (119, 24390), (124, 24417), (133, 24483), (148, 24561), (152, 24609), (153, 24621), (158, 24663),

Gene: RadFad_32 Start: 21637, Stop: 22890, Start Num: 4

Candidate Starts for RadFad_32:

(Start: 4 @21637 has 41 MA's), (13, 21805), (26, 21964), (28, 22015), (54, 22198), (72, 22309), (80, 22381), (82, 22396), (96, 22468), (102, 22504), (116, 22570), (119, 22594), (124, 22621), (133, 22687), (148, 22765), (152, 22813), (153, 22825), (158, 22867),

Gene: Raphaella_32 Start: 21571, Stop: 22824, Start Num: 4

Candidate Starts for Raphaella_32:

(Start: 4 @21571 has 41 MA's), (13, 21739), (26, 21898), (28, 21949), (54, 22132), (72, 22243), (80, 22315), (82, 22330), (96, 22402), (102, 22438), (116, 22504), (119, 22528), (124, 22555), (133, 22621), (148, 22699), (152, 22747), (153, 22759), (158, 22801),

Gene: Richie_32 Start: 21652, Stop: 22905, Start Num: 4

Candidate Starts for Richie_32:

(Start: 4 @21652 has 41 MA's), (13, 21820), (26, 21979), (28, 22030), (54, 22213), (72, 22324), (80, 22396), (82, 22411), (96, 22483), (102, 22519), (116, 22585), (119, 22609), (124, 22636), (133, 22702), (148, 22780), (152, 22828), (153, 22840), (158, 22882),

Gene: Ryan_32 Start: 23954, Stop: 25207, Start Num: 4

Candidate Starts for Ryan_32:

(Start: 4 @23954 has 41 MA's), (13, 24122), (26, 24281), (28, 24332), (54, 24515), (72, 24626), (80, 24698), (82, 24713), (96, 24785), (102, 24821), (116, 24887), (119, 24911), (124, 24938), (133, 25004), (148, 25082), (152, 25130), (153, 25142), (158, 25184),

Gene: Sakai_32 Start: 21580, Stop: 22833, Start Num: 4

Candidate Starts for Sakai_32:

(Start: 4 @21580 has 41 MA's), (13, 21748), (26, 21907), (28, 21958), (54, 22141), (72, 22252), (80, 22324), (82, 22339), (96, 22411), (102, 22447), (116, 22513), (119, 22537), (124, 22564), (133, 22630), (148, 22708), (152, 22756), (153, 22768), (158, 22810),

Gene: Satrap_32 Start: 21746, Stop: 22999, Start Num: 4

Candidate Starts for Satrap_32:

(Start: 4 @21746 has 41 MA's), (13, 21914), (26, 22073), (28, 22124), (54, 22307), (72, 22418), (80, 22490), (82, 22505), (96, 22577), (102, 22613), (116, 22679), (119, 22703), (124, 22730), (133, 22796), (148, 22874), (152, 22922), (153, 22934), (158, 22976),

Gene: Schism_32 Start: 23343, Stop: 24596, Start Num: 4

Candidate Starts for Schism_32:

(Start: 4 @23343 has 41 MA's), (13, 23511), (26, 23670), (28, 23721), (54, 23904), (72, 24015), (80, 24087), (82, 24102), (96, 24174), (102, 24210), (116, 24276), (119, 24300), (124, 24327), (133, 24393), (148, 24471), (152, 24519), (153, 24531), (158, 24573),

Gene: Shukran_32 Start: 21746, Stop: 22999, Start Num: 4

Candidate Starts for Shukran_32:

(Start: 4 @21746 has 41 MA's), (13, 21914), (26, 22073), (28, 22124), (54, 22307), (72, 22418), (80, 22490), (82, 22505), (96, 22577), (102, 22613), (116, 22679), (119, 22703), (124, 22730), (133, 22796), (148, 22874), (152, 22922), (153, 22934), (158, 22976),

Gene: SonDevVon_31 Start: 21573, Stop: 22826, Start Num: 4

Candidate Starts for SonDevVon_31:

(Start: 4 @21573 has 41 MA's), (13, 21741), (26, 21900), (28, 21951), (54, 22134), (72, 22245), (80, 22317), (82, 22332), (96, 22404), (102, 22440), (116, 22506), (119, 22530), (124, 22557), (133, 22623), (148, 22701), (152, 22749), (153, 22761), (158, 22803),

Gene: SpicyFrank_32 Start: 21872, Stop: 23125, Start Num: 4

Candidate Starts for SpicyFrank_32:

(Start: 4 @21872 has 41 MA's), (13, 22040), (26, 22199), (28, 22250), (54, 22433), (72, 22544), (80, 22616), (82, 22631), (96, 22703), (102, 22739), (116, 22805), (119, 22829), (124, 22856), (133, 22922), (148, 23000), (152, 23048), (153, 23060), (158, 23102),

Gene: Sporco_33 Start: 21628, Stop: 22881, Start Num: 4

Candidate Starts for Sporco_33:

(Start: 4 @21628 has 41 MA's), (13, 21796), (26, 21955), (28, 22006), (54, 22189), (72, 22300), (80, 22372), (82, 22387), (96, 22459), (102, 22495), (116, 22561), (119, 22585), (124, 22612), (133, 22678), (148, 22756), (152, 22804), (153, 22816), (158, 22858),

Gene: ThayneTheZag_32 Start: 21791, Stop: 23044, Start Num: 4

Candidate Starts for ThayneTheZag_32:

(Start: 4 @21791 has 41 MA's), (13, 21959), (26, 22118), (28, 22169), (54, 22352), (72, 22463), (80, 22535), (82, 22550), (96, 22622), (102, 22658), (116, 22724), (119, 22748), (124, 22775), (133, 22841), (148, 22919), (152, 22967), (153, 22979), (158, 23021),

Gene: ToastyOats_35 Start: 23974, Stop: 25227, Start Num: 4

Candidate Starts for ToastyOats_35:

(Start: 4 @23974 has 41 MA's), (13, 24142), (26, 24301), (28, 24352), (54, 24535), (72, 24646), (80, 24718), (82, 24733), (96, 24805), (102, 24841), (116, 24907), (119, 24931), (124, 24958), (133, 25024), (148, 25102), (152, 25150), (153, 25162), (158, 25204),

Gene: Toodles_33 Start: 23804, Stop: 25057, Start Num: 4

Candidate Starts for Toodles_33:

(Start: 4 @23804 has 41 MA's), (13, 23972), (26, 24131), (28, 24182), (54, 24365), (72, 24476), (80, 24548), (82, 24563), (96, 24635), (102, 24671), (116, 24737), (119, 24761), (124, 24788), (133, 24854), (148, 24932), (152, 24980), (153, 24992), (158, 25034),

Gene: Yonex_32 Start: 23954, Stop: 25207, Start Num: 4

Candidate Starts for Yonex_32:

(Start: 4 @23954 has 41 MA's), (13, 24122), (26, 24281), (28, 24332), (54, 24515), (72, 24626), (80, 24698), (82, 24713), (96, 24785), (102, 24821), (116, 24887), (119, 24911), (124, 24938), (133, 25004), (148, 25082), (152, 25130), (153, 25142), (158, 25184),

Gene: YoungHarleezy_32 Start: 21650, Stop: 22903, Start Num: 4

Candidate Starts for YoungHarleezy_32:

(Start: 4 @21650 has 41 MA's), (13, 21818), (26, 21977), (28, 22028), (54, 22211), (72, 22322), (80, 22394), (82, 22409), (96, 22481), (102, 22517), (116, 22583), (119, 22607), (124, 22634), (133, 22700), (148, 22778), (152, 22826), (153, 22838), (158, 22880),

Gene: Zaheer_32 Start: 24043, Stop: 25296, Start Num: 4

Candidate Starts for Zaheer_32:

(Start: 4 @24043 has 41 MA's), (13, 24211), (26, 24370), (28, 24421), (54, 24604), (72, 24715), (80, 24787), (82, 24802), (96, 24874), (102, 24910), (116, 24976), (119, 25000), (124, 25027), (133, 25093), (148, 25171), (152, 25219), (153, 25231), (158, 25273),