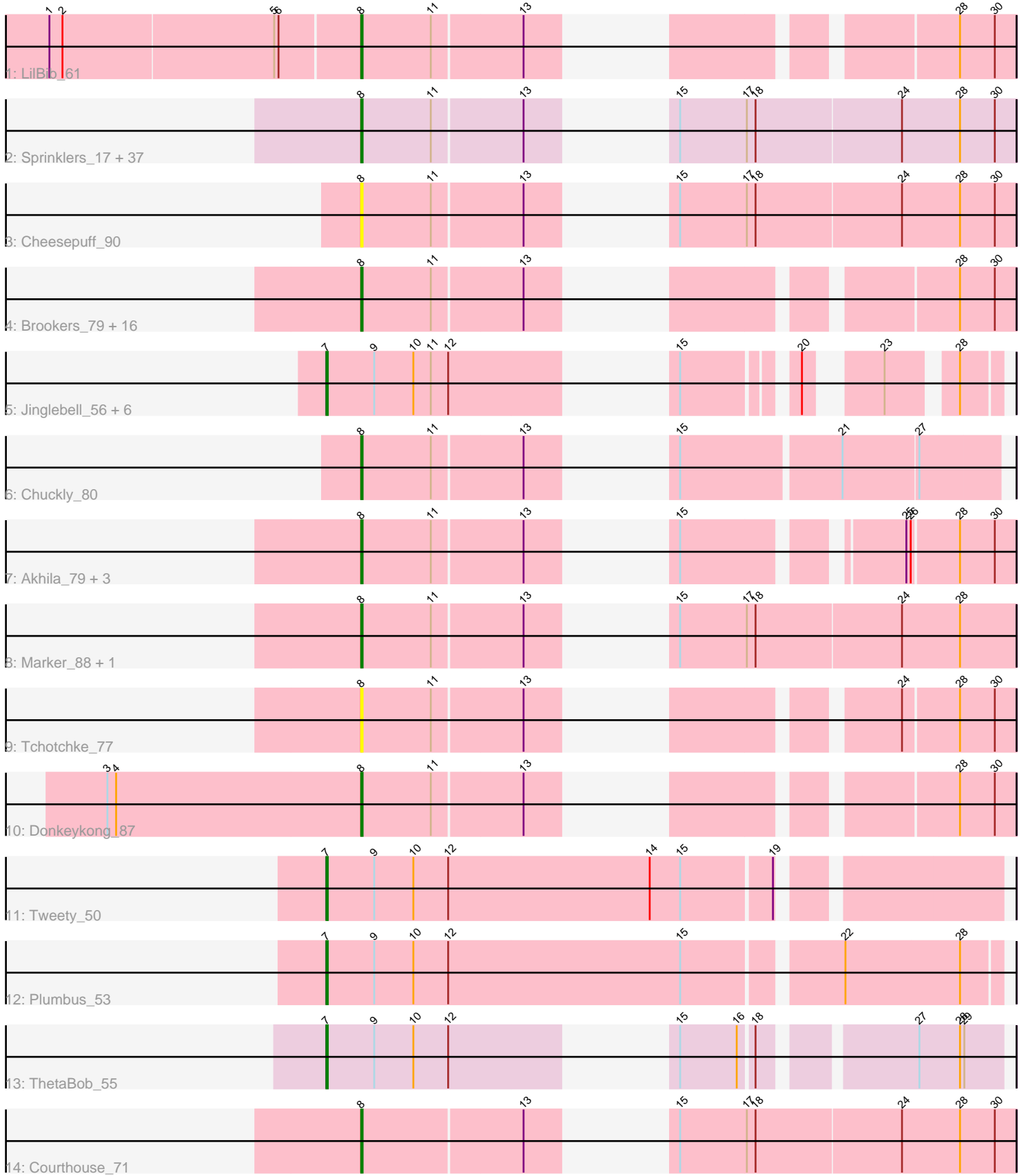


Pham 224530



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 224530 Report

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

Pham number 224530 has 77 members, 12 are drafts.

Phages represented in each track:

- Track 1 : LilBib_61
- Track 2 : Sprinklers_17, NihilNomen_75, Zelink_72, Ejimix_74, Flypotenuse_37, Traaww1_39, DmpstrDiver_74, Superphikiman_72, MiaZeal_75, Bagrid_73, Lucky2013_72, Shaboozey_68, Squint_75, Che8_87, Balomoji_41, Gator_40, Glexan_40, Schatzie_69, Jant_83, Cali_18, Beem_74, Redno2_71, Dallas_73, JuicyJay_73, EricMillard_73, Halley_76, Hughesyang_73, Phoebus_77, Daikon_43, HokkenD_67, Odette_73, BadAgartude_18, Kalah2_69, Porcelain_74, ThreeRngTarjay_72, Rearden_67, Ariel_74, Harella_42
- Track 3 : Cheesepuff_90
- Track 4 : Brookers_79, BigPhil_75, Ogopogo_88, Mozy_89, MadMen_88, LunaBlu_85, Velveteen_76, NewHope4_84, Sarma624_81, Coco12_79, Bipolar_85, KristaRAM_80, Kingsley_86, Soul22_83, Cerasum_76, LittleE_76, Polo2Bam_91
- Track 5 : Jinglebell_56, Modragons_55, Ochi17_54, AlpineSix_56, Seabastian_56, OfUltron_56, Llama_56
- Track 6 : Chuckly_80
- Track 7 : Akhila_79, Batiatus_82, Ms6_83, MilanaBonita_78
- Track 8 : Marker_88, Yeet_70
- Track 9 : Tchotchke_77
- Track 10 : Donkeykong_87
- Track 11 : Tweety_50
- Track 12 : Plumbus_53
- Track 13 : ThetaBob_55
- Track 14 : Courthouse_71

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

The start number called the most often in the published annotations is 8, it was called in 55 of the 65 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila_79, Ariel_74, BadAgartude_18, Bagrid_73, Balomoji_41, Batiatus_82, Beem_74, BigPhil_75, Bipolar_85, Brookers_79, Cali_18, Cerasum_76, Che8_87, Cheesepuff_90, Chuckly_80, Coco12_79, Courthouse_71, Daikon_43, Dallas_73, DmpstrDiver_74, Donkeykong_87, Ejimix_74, EricMillard_73, Flypotenuse_37,

Gator_40, Glexan_40, Halley_76, Harella_42, HokkenD_67, Hughesyang_73, Jant_83, JuicyJay_73, Kalah2_69, Kingsley_86, KristaRAM_80, LilBib_61, LittleE_76, Lucky2013_72, LunaBlu_85, MadMen_88, Marker_88, MiaZeal_75, MilanaBonita_78, Mozy_89, Ms6_83, NewHope4_84, NihilNomen_75, Odette_73, Ogopogo_88, Phoebus_77, Polo2Bam_91, Porcelain_74, Rearden_67, Redno2_71, Sarma624_81, Schatzie_69, Shaboozey_68, Soul22_83, Sprinklers_17, Squint_75, Superphikiman_72, Tchotchke_77, ThreeRngTarjay_72, Traaww1_39, Velveteen_76, Yeet_70, Zelink_72,

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

-

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

- AlpineSix_56, Jinglebell_56, Llama_56, Modragons_55, Ochi17_54, OfUltron_56, Plumbus_53, Seabastian_56, ThetaBob_55, Tweety_50,

Summary by start number:

Start 7:

- Found in 10 of 77 (13.0%) of genes in pham
- Manual Annotations of this start: 10 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlpineSix_56 (F1), Jinglebell_56 (F1), Llama_56 (F1), Modragons_55 (F1), Ochi17_54 (F1), OfUltron_56 (F1), Plumbus_53 (F1), Seabastian_56 (F1), ThetaBob_55 (F4), Tweety_50 (F1),

Start 8:

- Found in 67 of 77 (87.0%) of genes in pham
- Manual Annotations of this start: 55 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akhila_79 (F1), Ariel_74 (J), BadAgartude_18 (C1), Bagrid_73 (J), Balomogi_41 (E), Batiatus_82 (F1), Beem_74 (J), BigPhil_75 (F1), Bipolar_85 (F1), Brookers_79 (F1), Cali_18 (C1), Cerasum_76 (F1), Che8_87 (F1), Cheese puff_90 (F1), Chuckly_80 (F1), Coco12_79 (F1), Courthouse_71 (J), Daikon_43 (E), Dallas_73 (J), DmpstrDiver_74 (J), Donkeykong_87 (F1), Ejimix_74 (J), EricMillard_73 (J), Flypotenuse_37 (E), Gator_40 (E), Glexan_40 (E), Halley_76 (J), Harella_42 (E), HokkenD_67 (J), Hughesyang_73 (J), Jant_83 (F1), JuicyJay_73 (J), Kalah2_69 (J), Kingsley_86 (F1), KristaRAM_80 (F1), LilBib_61 (A1), LittleE_76 (J), Lucky2013_72 (J), LunaBlu_85 (F1), MadMen_88 (F1), Marker_88 (F1), MiaZeal_75 (J), MilanaBonita_78 (F1), Mozy_89 (F1), Ms6_83 (F1), NewHope4_84 (F1), NihilNomen_75 (J), Odette_73 (J), Ogopogo_88 (F1), Phoebus_77 (J), Polo2Bam_91 (F1), Porcelain_74 (J), Rearden_67 (J), Redno2_71 (J), Sarma624_81 (F1), Schatzie_69 (J), Shaboozey_68 (J), Soul22_83 (F2), Sprinklers_17 (C1), Squint_75 (J), Superphikiman_72 (J), Tchotchke_77 (F1), ThreeRngTarjay_72 (J), Traaww1_39 (E), Velveteen_76 (F1), Yeet_70 (J), Zelink_72 (J),

Summary by clusters:

There are 7 clusters represented in this pham: F1, F2, F4, J, A1, E, C1,

Info for manual annotations of cluster A1:

- Start number 8 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster C1:

- Start number 8 was manually annotated 3 times for cluster C1.

Info for manual annotations of cluster E:

- Start number 8 was manually annotated 6 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 7 was manually annotated 9 times for cluster F1.
- Start number 8 was manually annotated 19 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 8 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:

- Start number 7 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:

- Start number 8 was manually annotated 25 times for cluster J.

Gene Information:

Gene: Akhila_79 Start: 48285, Stop: 48626, Start Num: 8

Candidate Starts for Akhila_79:

(Start: 8 @48285 has 55 MA's), (11, 48333), (13, 48393), (15, 48426), (25, 48555), (26, 48558), (28, 48588), (30, 48612),

Gene: AlpineSix_56 Start: 38900, Stop: 39235, Start Num: 7

Candidate Starts for AlpineSix_56:

(Start: 7 @38900 has 10 MA's), (9, 38933), (10, 38960), (11, 38972), (12, 38984), (15, 39068), (20, 39134), (23, 39170), (28, 39209),

Gene: Ariel_74 Start: 47072, Stop: 46704, Start Num: 8

Candidate Starts for Ariel_74:

(Start: 8 @47072 has 55 MA's), (11, 47024), (13, 46964), (15, 46931), (17, 46886), (18, 46880), (24, 46781), (28, 46742), (30, 46718),

Gene: BadAgartude_18 Start: 5785, Stop: 6153, Start Num: 8

Candidate Starts for BadAgartude_18:

(Start: 8 @5785 has 55 MA's), (11, 5833), (13, 5893), (15, 5926), (17, 5971), (18, 5977), (24, 6076), (28, 6115), (30, 6139),

Gene: Bagrid_73 Start: 50489, Stop: 50121, Start Num: 8

Candidate Starts for Bagrid_73:

(Start: 8 @50489 has 55 MA's), (11, 50441), (13, 50381), (15, 50348), (17, 50303), (18, 50297), (24, 50198), (28, 50159), (30, 50135),

Gene: Balomoji_41 Start: 35435, Stop: 35067, Start Num: 8

Candidate Starts for Balomoji_41:

(Start: 8 @35435 has 55 MA's), (11, 35387), (13, 35327), (15, 35294), (17, 35249), (18, 35243), (24, 35144), (28, 35105), (30, 35081),

Gene: Batiatus_82 Start: 49370, Stop: 49711, Start Num: 8
Candidate Starts for Batiatus_82:
(Start: 8 @49370 has 55 MA's), (11, 49418), (13, 49478), (15, 49511), (25, 49640), (26, 49643), (28, 49673), (30, 49697),

Gene: Beem_74 Start: 51349, Stop: 50981, Start Num: 8
Candidate Starts for Beem_74:
(Start: 8 @51349 has 55 MA's), (11, 51301), (13, 51241), (15, 51208), (17, 51163), (18, 51157), (24, 51058), (28, 51019), (30, 50995),

Gene: BigPhil_75 Start: 45204, Stop: 45548, Start Num: 8
Candidate Starts for BigPhil_75:
(Start: 8 @45204 has 55 MA's), (11, 45252), (13, 45312), (28, 45510), (30, 45534),

Gene: Bipolar_85 Start: 50898, Stop: 51242, Start Num: 8
Candidate Starts for Bipolar_85:
(Start: 8 @50898 has 55 MA's), (11, 50946), (13, 51006), (28, 51204), (30, 51228),

Gene: Brookers_79 Start: 48155, Stop: 48499, Start Num: 8
Candidate Starts for Brookers_79:
(Start: 8 @48155 has 55 MA's), (11, 48203), (13, 48263), (28, 48461), (30, 48485),

Gene: Cali_18 Start: 6761, Stop: 7129, Start Num: 8
Candidate Starts for Cali_18:
(Start: 8 @6761 has 55 MA's), (11, 6809), (13, 6869), (15, 6902), (17, 6947), (18, 6953), (24, 7052), (28, 7091), (30, 7115),

Gene: Cerasum_76 Start: 45222, Stop: 45566, Start Num: 8
Candidate Starts for Cerasum_76:
(Start: 8 @45222 has 55 MA's), (11, 45270), (13, 45330), (28, 45528), (30, 45552),

Gene: Che8_87 Start: 50151, Stop: 50519, Start Num: 8
Candidate Starts for Che8_87:
(Start: 8 @50151 has 55 MA's), (11, 50199), (13, 50259), (15, 50292), (17, 50337), (18, 50343), (24, 50442), (28, 50481), (30, 50505),

Gene: Cheesepuff_90 Start: 48668, Stop: 49036, Start Num: 8
Candidate Starts for Cheesepuff_90:
(Start: 8 @48668 has 55 MA's), (11, 48716), (13, 48776), (15, 48809), (17, 48854), (18, 48860), (24, 48959), (28, 48998), (30, 49022),

Gene: Chuckly_80 Start: 46634, Stop: 46984, Start Num: 8
Candidate Starts for Chuckly_80:
(Start: 8 @46634 has 55 MA's), (11, 46682), (13, 46742), (15, 46775), (21, 46880), (27, 46931),

Gene: Coco12_79 Start: 49279, Stop: 49623, Start Num: 8
Candidate Starts for Coco12_79:
(Start: 8 @49279 has 55 MA's), (11, 49327), (13, 49387), (28, 49585), (30, 49609),

Gene: Courthouse_71 Start: 46710, Stop: 46342, Start Num: 8
Candidate Starts for Courthouse_71:

(Start: 8 @46710 has 55 MA's), (13, 46602), (15, 46569), (17, 46524), (18, 46518), (24, 46419), (28, 46380), (30, 46356),

Gene: Daikon_43 Start: 35456, Stop: 35088, Start Num: 8

Candidate Starts for Daikon_43:

(Start: 8 @35456 has 55 MA's), (11, 35408), (13, 35348), (15, 35315), (17, 35270), (18, 35264), (24, 35165), (28, 35126), (30, 35102),

Gene: Dallas_73 Start: 50270, Stop: 49902, Start Num: 8

Candidate Starts for Dallas_73:

(Start: 8 @50270 has 55 MA's), (11, 50222), (13, 50162), (15, 50129), (17, 50084), (18, 50078), (24, 49979), (28, 49940), (30, 49916),

Gene: DmpstrDiver_74 Start: 50697, Stop: 50329, Start Num: 8

Candidate Starts for DmpstrDiver_74:

(Start: 8 @50697 has 55 MA's), (11, 50649), (13, 50589), (15, 50556), (17, 50511), (18, 50505), (24, 50406), (28, 50367), (30, 50343),

Gene: Donkeykong_87 Start: 51001, Stop: 51345, Start Num: 8

Candidate Starts for Donkeykong_87:

(3, 50827), (4, 50833), (Start: 8 @51001 has 55 MA's), (11, 51049), (13, 51109), (28, 51307), (30, 51331),

Gene: Ejimix_74 Start: 52138, Stop: 51770, Start Num: 8

Candidate Starts for Ejimix_74:

(Start: 8 @52138 has 55 MA's), (11, 52090), (13, 52030), (15, 51997), (17, 51952), (18, 51946), (24, 51847), (28, 51808), (30, 51784),

Gene: EricMillard_73 Start: 51342, Stop: 50974, Start Num: 8

Candidate Starts for EricMillard_73:

(Start: 8 @51342 has 55 MA's), (11, 51294), (13, 51234), (15, 51201), (17, 51156), (18, 51150), (24, 51051), (28, 51012), (30, 50988),

Gene: Flypotenuse_37 Start: 34187, Stop: 33819, Start Num: 8

Candidate Starts for Flypotenuse_37:

(Start: 8 @34187 has 55 MA's), (11, 34139), (13, 34079), (15, 34046), (17, 34001), (18, 33995), (24, 33896), (28, 33857), (30, 33833),

Gene: Gator_40 Start: 35326, Stop: 34958, Start Num: 8

Candidate Starts for Gator_40:

(Start: 8 @35326 has 55 MA's), (11, 35278), (13, 35218), (15, 35185), (17, 35140), (18, 35134), (24, 35035), (28, 34996), (30, 34972),

Gene: Glexan_40 Start: 35314, Stop: 34946, Start Num: 8

Candidate Starts for Glexan_40:

(Start: 8 @35314 has 55 MA's), (11, 35266), (13, 35206), (15, 35173), (17, 35128), (18, 35122), (24, 35023), (28, 34984), (30, 34960),

Gene: Halley_76 Start: 51349, Stop: 50981, Start Num: 8

Candidate Starts for Halley_76:

(Start: 8 @51349 has 55 MA's), (11, 51301), (13, 51241), (15, 51208), (17, 51163), (18, 51157), (24, 51058), (28, 51019), (30, 50995),

Gene: Harella_42 Start: 35830, Stop: 35462, Start Num: 8
Candidate Starts for Harella_42:
(Start: 8 @35830 has 55 MA's), (11, 35782), (13, 35722), (15, 35689), (17, 35644), (18, 35638), (24, 35539), (28, 35500), (30, 35476),

Gene: HokkenD_67 Start: 49618, Stop: 49250, Start Num: 8
Candidate Starts for HokkenD_67:
(Start: 8 @49618 has 55 MA's), (11, 49570), (13, 49510), (15, 49477), (17, 49432), (18, 49426), (24, 49327), (28, 49288), (30, 49264),

Gene: Hughesyang_73 Start: 51308, Stop: 50940, Start Num: 8
Candidate Starts for Hughesyang_73:
(Start: 8 @51308 has 55 MA's), (11, 51260), (13, 51200), (15, 51167), (17, 51122), (18, 51116), (24, 51017), (28, 50978), (30, 50954),

Gene: Jant_83 Start: 47663, Stop: 48031, Start Num: 8
Candidate Starts for Jant_83:
(Start: 8 @47663 has 55 MA's), (11, 47711), (13, 47771), (15, 47804), (17, 47849), (18, 47855), (24, 47954), (28, 47993), (30, 48017),

Gene: Jinglebell_56 Start: 38899, Stop: 39234, Start Num: 7
Candidate Starts for Jinglebell_56:
(Start: 7 @38899 has 10 MA's), (9, 38932), (10, 38959), (11, 38971), (12, 38983), (15, 39067), (20, 39133), (23, 39169), (28, 39208),

Gene: JuicyJay_73 Start: 52483, Stop: 52115, Start Num: 8
Candidate Starts for JuicyJay_73:
(Start: 8 @52483 has 55 MA's), (11, 52435), (13, 52375), (15, 52342), (17, 52297), (18, 52291), (24, 52192), (28, 52153), (30, 52129),

Gene: Kalah2_69 Start: 50642, Stop: 50274, Start Num: 8
Candidate Starts for Kalah2_69:
(Start: 8 @50642 has 55 MA's), (11, 50594), (13, 50534), (15, 50501), (17, 50456), (18, 50450), (24, 50351), (28, 50312), (30, 50288),

Gene: Kingsley_86 Start: 51886, Stop: 52230, Start Num: 8
Candidate Starts for Kingsley_86:
(Start: 8 @51886 has 55 MA's), (11, 51934), (13, 51994), (28, 52192), (30, 52216),

Gene: KristaRAM_80 Start: 48204, Stop: 48548, Start Num: 8
Candidate Starts for KristaRAM_80:
(Start: 8 @48204 has 55 MA's), (11, 48252), (13, 48312), (28, 48510), (30, 48534),

Gene: LilBib_61 Start: 42376, Stop: 42032, Start Num: 8
Candidate Starts for LilBib_61:
(1, 42586), (2, 42577), (5, 42433), (6, 42430), (Start: 8 @42376 has 55 MA's), (11, 42328), (13, 42268), (28, 42070), (30, 42046),

Gene: LittleE_76 Start: 50154, Stop: 49810, Start Num: 8
Candidate Starts for LittleE_76:
(Start: 8 @50154 has 55 MA's), (11, 50106), (13, 50046), (28, 49848), (30, 49824),

Gene: Llama_56 Start: 38897, Stop: 39232, Start Num: 7

Candidate Starts for Llama_56:

(Start: 7 @38897 has 10 MA's), (9, 38930), (10, 38957), (11, 38969), (12, 38981), (15, 39065), (20, 39131), (23, 39167), (28, 39206),

Gene: Lucky2013_72 Start: 47088, Stop: 46720, Start Num: 8

Candidate Starts for Lucky2013_72:

(Start: 8 @47088 has 55 MA's), (11, 47040), (13, 46980), (15, 46947), (17, 46902), (18, 46896), (24, 46797), (28, 46758), (30, 46734),

Gene: LunaBlu_85 Start: 49751, Stop: 50095, Start Num: 8

Candidate Starts for LunaBlu_85:

(Start: 8 @49751 has 55 MA's), (11, 49799), (13, 49859), (28, 50057), (30, 50081),

Gene: MadMen_88 Start: 49877, Stop: 50221, Start Num: 8

Candidate Starts for MadMen_88:

(Start: 8 @49877 has 55 MA's), (11, 49925), (13, 49985), (28, 50183), (30, 50207),

Gene: Marker_88 Start: 49677, Stop: 50045, Start Num: 8

Candidate Starts for Marker_88:

(Start: 8 @49677 has 55 MA's), (11, 49725), (13, 49785), (15, 49818), (17, 49863), (18, 49869), (24, 49968), (28, 50007),

Gene: MiaZeal_75 Start: 47744, Stop: 47376, Start Num: 8

Candidate Starts for MiaZeal_75:

(Start: 8 @47744 has 55 MA's), (11, 47696), (13, 47636), (15, 47603), (17, 47558), (18, 47552), (24, 47453), (28, 47414), (30, 47390),

Gene: MilanaBonita_78 Start: 48285, Stop: 48626, Start Num: 8

Candidate Starts for MilanaBonita_78:

(Start: 8 @48285 has 55 MA's), (11, 48333), (13, 48393), (15, 48426), (25, 48555), (26, 48558), (28, 48588), (30, 48612),

Gene: Modragons_55 Start: 38743, Stop: 39078, Start Num: 7

Candidate Starts for Modragons_55:

(Start: 7 @38743 has 10 MA's), (9, 38776), (10, 38803), (11, 38815), (12, 38827), (15, 38911), (20, 38977), (23, 39013), (28, 39052),

Gene: Mozy_89 Start: 48614, Stop: 48958, Start Num: 8

Candidate Starts for Mozy_89:

(Start: 8 @48614 has 55 MA's), (11, 48662), (13, 48722), (28, 48920), (30, 48944),

Gene: Ms6_83 Start: 45978, Stop: 46319, Start Num: 8

Candidate Starts for Ms6_83:

(Start: 8 @45978 has 55 MA's), (11, 46026), (13, 46086), (15, 46119), (25, 46248), (26, 46251), (28, 46281), (30, 46305),

Gene: NewHope4_84 Start: 47846, Stop: 48190, Start Num: 8

Candidate Starts for NewHope4_84:

(Start: 8 @47846 has 55 MA's), (11, 47894), (13, 47954), (28, 48152), (30, 48176),

Gene: NihilNomen_75 Start: 51436, Stop: 51068, Start Num: 8

Candidate Starts for NihilNomen_75:

(Start: 8 @51436 has 55 MA's), (11, 51388), (13, 51328), (15, 51295), (17, 51250), (18, 51244), (24, 51145), (28, 51106), (30, 51082),

Gene: Ochi17_54 Start: 38350, Stop: 38685, Start Num: 7

Candidate Starts for Ochi17_54:

(Start: 7 @38350 has 10 MA's), (9, 38383), (10, 38410), (11, 38422), (12, 38434), (15, 38518), (20, 38584), (23, 38620), (28, 38659),

Gene: Odette_73 Start: 50479, Stop: 50111, Start Num: 8

Candidate Starts for Odette_73:

(Start: 8 @50479 has 55 MA's), (11, 50431), (13, 50371), (15, 50338), (17, 50293), (18, 50287), (24, 50188), (28, 50149), (30, 50125),

Gene: OfUltron_56 Start: 38899, Stop: 39234, Start Num: 7

Candidate Starts for OfUltron_56:

(Start: 7 @38899 has 10 MA's), (9, 38932), (10, 38959), (11, 38971), (12, 38983), (15, 39067), (20, 39133), (23, 39169), (28, 39208),

Gene: Ogopogo_88 Start: 49094, Stop: 49438, Start Num: 8

Candidate Starts for Ogopogo_88:

(Start: 8 @49094 has 55 MA's), (11, 49142), (13, 49202), (28, 49400), (30, 49424),

Gene: Phoebus_77 Start: 52618, Stop: 52250, Start Num: 8

Candidate Starts for Phoebus_77:

(Start: 8 @52618 has 55 MA's), (11, 52570), (13, 52510), (15, 52477), (17, 52432), (18, 52426), (24, 52327), (28, 52288), (30, 52264),

Gene: Plumbus_53 Start: 37073, Stop: 37519, Start Num: 7

Candidate Starts for Plumbus_53:

(Start: 7 @37073 has 10 MA's), (9, 37106), (10, 37133), (12, 37157), (15, 37316), (22, 37415), (28, 37493),

Gene: Polo2Bam_91 Start: 47700, Stop: 48044, Start Num: 8

Candidate Starts for Polo2Bam_91:

(Start: 8 @47700 has 55 MA's), (11, 47748), (13, 47808), (28, 48006), (30, 48030),

Gene: Porcelain_74 Start: 47744, Stop: 47376, Start Num: 8

Candidate Starts for Porcelain_74:

(Start: 8 @47744 has 55 MA's), (11, 47696), (13, 47636), (15, 47603), (17, 47558), (18, 47552), (24, 47453), (28, 47414), (30, 47390),

Gene: Rearden_67 Start: 46500, Stop: 46132, Start Num: 8

Candidate Starts for Rearden_67:

(Start: 8 @46500 has 55 MA's), (11, 46452), (13, 46392), (15, 46359), (17, 46314), (18, 46308), (24, 46209), (28, 46170), (30, 46146),

Gene: Redno2_71 Start: 48232, Stop: 47864, Start Num: 8

Candidate Starts for Redno2_71:

(Start: 8 @48232 has 55 MA's), (11, 48184), (13, 48124), (15, 48091), (17, 48046), (18, 48040), (24, 47941), (28, 47902), (30, 47878),

Gene: Sarma624_81 Start: 45898, Stop: 46242, Start Num: 8

Candidate Starts for Sarma624_81:

(Start: 8 @45898 has 55 MA's), (11, 45946), (13, 46006), (28, 46204), (30, 46228),

Gene: Schatzie_69 Start: 50226, Stop: 49858, Start Num: 8

Candidate Starts for Schatzie_69:

(Start: 8 @50226 has 55 MA's), (11, 50178), (13, 50118), (15, 50085), (17, 50040), (18, 50034), (24, 49935), (28, 49896), (30, 49872),

Gene: Seabastian_56 Start: 38900, Stop: 39235, Start Num: 7

Candidate Starts for Seabastian_56:

(Start: 7 @38900 has 10 MA's), (9, 38933), (10, 38960), (11, 38972), (12, 38984), (15, 39068), (20, 39134), (23, 39170), (28, 39209),

Gene: Shaboozey_68 Start: 45709, Stop: 45341, Start Num: 8

Candidate Starts for Shaboozey_68:

(Start: 8 @45709 has 55 MA's), (11, 45661), (13, 45601), (15, 45568), (17, 45523), (18, 45517), (24, 45418), (28, 45379), (30, 45355),

Gene: Soul22_83 Start: 47464, Stop: 47808, Start Num: 8

Candidate Starts for Soul22_83:

(Start: 8 @47464 has 55 MA's), (11, 47512), (13, 47572), (28, 47770), (30, 47794),

Gene: Sprinklers_17 Start: 5187, Stop: 5555, Start Num: 8

Candidate Starts for Sprinklers_17:

(Start: 8 @5187 has 55 MA's), (11, 5235), (13, 5295), (15, 5328), (17, 5373), (18, 5379), (24, 5478), (28, 5517), (30, 5541),

Gene: Squint_75 Start: 47863, Stop: 47495, Start Num: 8

Candidate Starts for Squint_75:

(Start: 8 @47863 has 55 MA's), (11, 47815), (13, 47755), (15, 47722), (17, 47677), (18, 47671), (24, 47572), (28, 47533), (30, 47509),

Gene: Superphikiman_72 Start: 46954, Stop: 46586, Start Num: 8

Candidate Starts for Superphikiman_72:

(Start: 8 @46954 has 55 MA's), (11, 46906), (13, 46846), (15, 46813), (17, 46768), (18, 46762), (24, 46663), (28, 46624), (30, 46600),

Gene: Tchotchke_77 Start: 47983, Stop: 48327, Start Num: 8

Candidate Starts for Tchotchke_77:

(Start: 8 @47983 has 55 MA's), (11, 48031), (13, 48091), (24, 48253), (28, 48289), (30, 48313),

Gene: ThetaBob_55 Start: 37062, Stop: 37427, Start Num: 7

Candidate Starts for ThetaBob_55:

(Start: 7 @37062 has 10 MA's), (9, 37095), (10, 37122), (12, 37146), (15, 37230), (16, 37269), (18, 37278), (27, 37371), (28, 37398), (29, 37401),

Gene: ThreeRngTarjay_72 Start: 51510, Stop: 51142, Start Num: 8

Candidate Starts for ThreeRngTarjay_72:

(Start: 8 @51510 has 55 MA's), (11, 51462), (13, 51402), (15, 51369), (17, 51324), (18, 51318), (24, 51219), (28, 51180), (30, 51156),

Gene: Traaww1_39 Start: 34655, Stop: 34287, Start Num: 8

Candidate Starts for Traaww1_39:

(Start: 8 @34655 has 55 MA's), (11, 34607), (13, 34547), (15, 34514), (17, 34469), (18, 34463), (24, 34364), (28, 34325), (30, 34301),

Gene: Tweety_50 Start: 37155, Stop: 37592, Start Num: 7

Candidate Starts for Tweety_50:

(Start: 7 @37155 has 10 MA's), (9, 37188), (10, 37215), (12, 37239), (14, 37377), (15, 37398), (19, 37458),

Gene: Velveteen_76 Start: 45898, Stop: 46242, Start Num: 8

Candidate Starts for Velveteen_76:

(Start: 8 @45898 has 55 MA's), (11, 45946), (13, 46006), (28, 46204), (30, 46228),

Gene: Yeet_70 Start: 49727, Stop: 49359, Start Num: 8

Candidate Starts for Yeet_70:

(Start: 8 @49727 has 55 MA's), (11, 49679), (13, 49619), (15, 49586), (17, 49541), (18, 49535), (24, 49436), (28, 49397),

Gene: Zelink_72 Start: 51822, Stop: 51454, Start Num: 8

Candidate Starts for Zelink_72:

(Start: 8 @51822 has 55 MA's), (11, 51774), (13, 51714), (15, 51681), (17, 51636), (18, 51630), (24, 51531), (28, 51492), (30, 51468),