

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 308498 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308498 has 77 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Angelique_74
- Track 2 : Bradissa_74
- Track 3 : EnalisNailo_74, Lilas_75
- Track 4 : Confidence_78
- Track 5 : BritBrat_97
- Track 6 : Wrigley_80, Posh_78, Pytheas_82, Jablanski_81
- Track 7 : BeeGee_81
- Track 8 : Cashline_75
- Track 9 : LonelyBoi_77
- Track 10 : Lton_69, OneDirection_66
- Track 11 : Pepperoni_65
- Track 12 : Savage_71, Lamberg_67, Attis_70, Bjanes7_68, Cynthia_71, SoilAssassin_70, Nettuno_68, Haley23_71, GemG_71, TuertoX_71, Whiteclaw_71, Sproutie_71, Mocha12_71
- Track 13 : Yinzer_71
- Track 14 : Clap_71, Ebert_74, Yeet412_69, Gizermo_71
- Track 15 : Jalleen_74
- Track 16 : Pickett_68, JCole_68, EdnaMode_70
- Track 17 : Matteo_64, Sahara_69
- Track 18 : Denise_73
- Track 19 : Moosehead_72
- Track 20 : Faith5x5_67
- Track 21 : Morkie_72
- Track 22 : Lucky10_68
- Track 23 : PhorbessPhlower_70
- Track 24 : InLimbo_70
- Track 25 : MortyNRick_94
- Track 26 : Malisha_94
- Track 27 : Birdsong_93
- Track 28 : BotCity_101
- Track 29 : BearBQ_99
- Track 30 : ODay_114
- Track 31 : Budski_104
- Track 32 : Phabuloso_106
- Track 33 : CheeseTouch_106
- Track 34 : Kenna_96
- Track 35 : BENtherdunthat_98, Getalong_100

- Track 36 : Asapag_96
- Track 37 : Holliday_98
- Track 38 : ShawBrad_106
- Track 39 : Leroy_100, Frickyeah_104
- Track 40 : Lutum_102
- Track 41 : Phistory_103
- Track 42 : LitninMcQueen_107
- Track 43 : Kamaru_94
- Track 44 : Whitney_100
- Track 45 : Spooky_107
- Track 46 : Crater_98, Ecliptus_107, Horus_100, Periwinkle_107
- Track 47 : Apricot_99
- Track 48 : Kuwabara_90
- Track 49 : PhaoMing_79

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

The start number called the most often in the published annotations is 30, it was called in 46 of the 71 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angelique_74, Asapag_96, BENtherdunthat_98, BearBQ_99, Birdsong_93, BotCity_101, Budski_104, CheeseTouch_106, Clap_71, Confidence_78, Crater_98, Denise_73, Ebert_74, Ecliptus_107, EdnaMode_70, EnalisNailo_74, Faith5x5_67, Frickyeah_104, Getalong_100, Gizermo_71, Holliday_98, Horus_100, JCole_68, Jablanski_81, Kamaru_94, Kuwabara_90, Leroy_100, Lilas_75, LitninMcQueen_107, LonelyBoi_77, Lton_69, Lutum_102, Malisha_94, Moosehead_72, MortyNRick_94, ODay_114, OneDirection_66, Periwinkle_107, Phabuloso_106, PhaoMing_79, PhorbessPhlower_70, Pickett_68, Posh_78, Pytheas_82, ShawBrad_106, Spooky_107, Whitney_100, Wrigley_80, Yeet412_69,

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

- Apricot_99, Attis_70, BeeGee_81, Bjaness7_68, Bradissa_74, BritBrat_97, Cashline_75, Cynthia_71, GemG_71, Haley23_71, InLimbo_70, Jalleen_74, Kenna_96, Lamberg_67, Lucky10_68, Matteo_64, Mocha12_71, Morkie_72, Nettuno_68, Pepperoni_65, Phistory_103, Sahara_69, Savage_71, SoilAssassin_70, Sproutie_71, TuertoX_71, Whiteclaw_71, Yinzer_71,

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

-

Summary by start number:

Start 6:

- Found in 7 of 77 (9.1%) of genes in pham
- Manual Annotations of this start: 2 of 71
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Lucky10_68 (DH), Morkie_72 (DH),

Start 7:

- Found in 1 of 77 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cashline_75 (CY6),

Start 13:

- Found in 8 of 77 (10.4%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Bradissa_74 (CY1),

Start 15:

- Found in 7 of 77 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 28.6% of time when present
- Phage (with cluster) where this start called: InLimbo_70 (DH), Pepperoni_65 (CZ),

Start 16:

- Found in 24 of 77 (31.2%) of genes in pham
- Manual Annotations of this start: 15 of 71
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Attis_70 (CZ2), Bjanes7_68 (CZ2), Cynthia_71 (CZ2), GemG_71 (CZ2), Haley23_71 (CZ2), Lamberg_67 (CZ2), Matteo_64 (CZ2), Mocha12_71 (CZ2), Nettuno_68 (CZ2), Sahara_69 (CZ2), Savage_71 (CZ2), SoilAssassin_70 (CZ2), Sproutie_71 (CZ2), TuertoX_71 (CZ2), Whiteclaw_71 (CZ2),

Start 19:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Phistory_103 (DN1),

Start 21:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kenna_96 (DN1),

Start 23:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BeeGee_81 (CY5), BritBrat_97 (CY2),

Start 29:

- Found in 25 of 77 (32.5%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Apricot_99 (DN3),

Start 30:

- Found in 77 of 77 (100.0%) of genes in pham

- Manual Annotations of this start: 46 of 71
- Called 63.6% of time when present
- Phage (with cluster) where this start called: Angelique_74 (CY1), Asapag_96 (DN1), BENTherdunthat_98 (DN1), BearBQ_99 (DN), Birdsong_93 (DN), BotCity_101 (DN), Budski_104 (DN), CheeseTouch_106 (DN1), Clap_71 (CZ2), Confidence_78 (CY1), Crater_98 (DN3), Denise_73 (CZ5), Ebert_74 (CZ2), Ecliptus_107 (DN), EdnaMode_70 (CZ2), EnalisNailo_74 (CY1), Faith5x5_67 (CZ6), Frickyeah_104 (DN1), Getalong_100 (DN1), Gizermo_71 (CZ2), Holliday_98 (DN1), Horus_100 (DN1), JCole_68 (CZ2), Jablanski_81 (CY3), Kamaru_94 (DN1), Kuwabara_90 (DN4), Leroy_100 (DN1), Lilas_75 (CY1), LitninMcQueen_107 (DN1), LonelyBoi_77 (CY7), Lton_69 (CZ), Lutum_102 (DN1), Malisha_94 (DN), Moosehead_72 (CZ6), MortyNRick_94 (DN), ODay_114 (DN), OneDirection_66 (CZ6), Periwinkle_107 (DN1), Phabuloso_106 (DN1), PhaoMing_79 (UNK), PhorbesPhlower_70 (DH), Pickett_68 (CZ2), Posh_78 (CY4), Pytheas_82 (CY3), ShawBrad_106 (DN1), Spooky_107 (DN2), Whitney_100 (DN1), Wrigley_80 (CY4), Yeet412_69 (CZ2),

Start 32:

- Found in 48 of 77 (62.3%) of genes in pham
- No Manual Annotations of this start.
- Called 4.2% of time when present
- Phage (with cluster) where this start called: Jalleen_74 (CZ2), Yinzer_71 (CZ2),

Summary by clusters:

There are 18 clusters represented in this pham: DN, CY2, CY1, CY3, CY6, DH, CY4, CZ2, CZ6, CZ5, CZ, DN1, DN3, DN2, CY5, CY7, UNK, DN4,

Info for manual annotations of cluster CY1:

- Start number 13 was manually annotated 1 time for cluster CY1.
- Start number 30 was manually annotated 4 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 23 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 30 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 30 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 23 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

- Start number 7 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 30 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:

- Start number 15 was manually annotated 1 time for cluster CZ.
- Start number 30 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ2:

- Start number 16 was manually annotated 15 times for cluster CZ2.
- Start number 30 was manually annotated 7 times for cluster CZ2.

Info for manual annotations of cluster CZ5:

- Start number 30 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 30 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster DH:

- Start number 6 was manually annotated 2 times for cluster DH.
- Start number 30 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:

- Start number 30 was manually annotated 8 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 19 was manually annotated 1 time for cluster DN1.
- Start number 21 was manually annotated 1 time for cluster DN1.
- Start number 30 was manually annotated 13 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 30 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 29 was manually annotated 1 time for cluster DN3.
- Start number 30 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 30 was manually annotated 1 time for cluster DN4.

Gene Information:

Gene: Angelique_74 Start: 50251, Stop: 50433, Start Num: 30

Candidate Starts for Angelique_74:

(20, 50185), (22, 50194), (Start: 30 @50251 has 46 MA's), (32, 50260), (34, 50287), (42, 50329), (46, 50401),

Gene: Apricot_99 Start: 51292, Stop: 51489, Start Num: 29

Candidate Starts for Apricot_99:

(Start: 29 @51292 has 1 MA's), (Start: 30 @51301 has 46 MA's), (36, 51352), (37, 51355), (38, 51361), (41, 51382), (47, 51481),

Gene: Asapag_96 Start: 53497, Stop: 53685, Start Num: 30

Candidate Starts for Asapag_96:

(Start: 19 @53422 has 1 MA's), (Start: 29 @53488 has 1 MA's), (Start: 30 @53497 has 46 MA's), (36, 53548), (37, 53551), (38, 53557), (41, 53578),

Gene: Attis_70 Start: 46336, Stop: 46608, Start Num: 16

Candidate Starts for Attis_70:

(12, 46309), (Start: 16 @46336 has 15 MA's), (25, 46384), (Start: 30 @46426 has 46 MA's), (32, 46435), (34, 46462), (35, 46468), (42, 46504), (44, 46564),

Gene: BENtherdunthat_98 Start: 53066, Stop: 53254, Start Num: 30

Candidate Starts for BENtherdunthat_98:

(Start: 29 @53057 has 1 MA's), (Start: 30 @53066 has 46 MA's), (36, 53117), (37, 53120), (38, 53126),

Gene: BearBQ_99 Start: 54180, Stop: 54368, Start Num: 30

Candidate Starts for BearBQ_99:

(Start: 29 @54171 has 1 MA's), (Start: 30 @54180 has 46 MA's), (36, 54231), (37, 54234), (38, 54240), (41, 54261), (42, 54279), (47, 54360),

Gene: BeeGee_81 Start: 51002, Stop: 51229, Start Num: 23

Candidate Starts for BeeGee_81:

(Start: 23 @51002 has 2 MA's), (Start: 30 @51047 has 46 MA's), (32, 51056), (34, 51083), (42, 51125),

Gene: Birdsong_93 Start: 52168, Stop: 52356, Start Num: 30

Candidate Starts for Birdsong_93:

(10, 52006), (Start: 13 @52060 has 1 MA's), (14, 52063), (Start: 15 @52072 has 1 MA's), (Start: 29 @52159 has 1 MA's), (Start: 30 @52168 has 46 MA's), (36, 52219), (37, 52222), (38, 52228), (41, 52249), (42, 52267),

Gene: Bjaner7_68 Start: 44497, Stop: 44769, Start Num: 16

Candidate Starts for Bjaner7_68:

(12, 44470), (Start: 16 @44497 has 15 MA's), (25, 44545), (Start: 30 @44587 has 46 MA's), (32, 44596), (34, 44623), (35, 44629), (42, 44665), (44, 44725),

Gene: BotCity_101 Start: 53912, Stop: 54100, Start Num: 30

Candidate Starts for BotCity_101:

(9, 53744), (18, 53840), (Start: 29 @53903 has 1 MA's), (Start: 30 @53912 has 46 MA's), (36, 53963), (37, 53966), (38, 53972),

Gene: Bradissa_74 Start: 51018, Stop: 51308, Start Num: 13

Candidate Starts for Bradissa_74:

(Start: 13 @51018 has 1 MA's), (Start: 30 @51126 has 46 MA's), (32, 51135), (34, 51162), (42, 51204), (45, 51273), (46, 51276),

Gene: BritBrat_97 Start: 54941, Stop: 55171, Start Num: 23

Candidate Starts for BritBrat_97:

(Start: 23 @54941 has 2 MA's), (Start: 30 @54986 has 46 MA's), (32, 54995), (34, 55022), (42, 55064), (45, 55133), (46, 55136),

Gene: Budski_104 Start: 54937, Stop: 55125, Start Num: 30

Candidate Starts for Budski_104:

(Start: 29 @54928 has 1 MA's), (Start: 30 @54937 has 46 MA's), (36, 54988), (37, 54991), (38, 54997), (47, 55117),

Gene: Cashline_75 Start: 51672, Stop: 52031, Start Num: 7

Candidate Starts for Cashline_75:

(1, 51369), (2, 51528), (3, 51558), (Start: 7 @51672 has 1 MA's), (11, 51723), (Start: 30 @51846 has 46 MA's), (32, 51855), (34, 51882), (42, 51924), (46, 51996),

Gene: CheeseTouch_106 Start: 52179, Stop: 52367, Start Num: 30
Candidate Starts for CheeseTouch_106:
(Start: 29 @52170 has 1 MA's), (Start: 30 @52179 has 46 MA's), (36, 52230), (37, 52233), (38, 52239),
(42, 52278),

Gene: Clap_71 Start: 44766, Stop: 44948, Start Num: 30
Candidate Starts for Clap_71:
(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32,
44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: Confidence_78 Start: 49927, Stop: 50109, Start Num: 30
Candidate Starts for Confidence_78:
(Start: 30 @49927 has 46 MA's), (32, 49936), (34, 49963), (42, 50005),

Gene: Crater_98 Start: 51645, Stop: 51833, Start Num: 30
Candidate Starts for Crater_98:
(Start: 29 @51636 has 1 MA's), (Start: 30 @51645 has 46 MA's), (36, 51696), (37, 51699), (38, 51705),
(41, 51726), (47, 51825),

Gene: Cynthia_71 Start: 44674, Stop: 44946, Start Num: 16
Candidate Starts for Cynthia_71:
(12, 44647), (Start: 16 @44674 has 15 MA's), (25, 44722), (Start: 30 @44764 has 46 MA's), (32,
44773), (34, 44800), (35, 44806), (42, 44842), (44, 44902),

Gene: Denise_73 Start: 43091, Stop: 43273, Start Num: 30
Candidate Starts for Denise_73:
(Start: 30 @43091 has 46 MA's), (32, 43100), (34, 43127), (39, 43136), (42, 43169), (45, 43238),

Gene: Ebert_74 Start: 45198, Stop: 45380, Start Num: 30
Candidate Starts for Ebert_74:
(12, 45081), (Start: 16 @45108 has 15 MA's), (25, 45156), (Start: 30 @45198 has 46 MA's), (32,
45207), (34, 45234), (35, 45240), (42, 45276), (44, 45336),

Gene: Ecliptus_107 Start: 54844, Stop: 55032, Start Num: 30
Candidate Starts for Ecliptus_107:
(Start: 29 @54835 has 1 MA's), (Start: 30 @54844 has 46 MA's), (36, 54895), (37, 54898), (38, 54904),
(41, 54925), (47, 55024),

Gene: EdnaMode_70 Start: 44874, Stop: 45056, Start Num: 30
Candidate Starts for EdnaMode_70:
(5, 44664), (12, 44757), (Start: 16 @44784 has 15 MA's), (25, 44832), (Start: 30 @44874 has 46 MA's),
(32, 44883), (34, 44910), (35, 44916), (42, 44952), (44, 45012),

Gene: EnalisNailo_74 Start: 50297, Stop: 50479, Start Num: 30
Candidate Starts for EnalisNailo_74:
(3, 50147), (Start: 30 @50297 has 46 MA's), (32, 50306), (34, 50333), (40, 50351), (42, 50375), (46,
50447),

Gene: Faith5x5_67 Start: 40159, Stop: 40341, Start Num: 30
Candidate Starts for Faith5x5_67:
(Start: 30 @40159 has 46 MA's), (32, 40168), (34, 40195), (42, 40237), (46, 40309),

Gene: Frickyeah_104 Start: 53591, Stop: 53779, Start Num: 30

Candidate Starts for Frickyeah_104:

(Start: 29 @53582 has 1 MA's), (Start: 30 @53591 has 46 MA's), (36, 53642), (37, 53645), (38, 53651), (41, 53672),

Gene: GemG_71 Start: 44680, Stop: 44952, Start Num: 16

Candidate Starts for GemG_71:

(12, 44653), (Start: 16 @44680 has 15 MA's), (25, 44728), (Start: 30 @44770 has 46 MA's), (32, 44779), (34, 44806), (35, 44812), (42, 44848), (44, 44908),

Gene: Getalong_100 Start: 54413, Stop: 54601, Start Num: 30

Candidate Starts for Getalong_100:

(Start: 29 @54404 has 1 MA's), (Start: 30 @54413 has 46 MA's), (36, 54464), (37, 54467), (38, 54473),

Gene: Gizermo_71 Start: 44766, Stop: 44948, Start Num: 30

Candidate Starts for Gizermo_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: Haley23_71 Start: 44676, Stop: 44948, Start Num: 16

Candidate Starts for Haley23_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: Holliday_98 Start: 55851, Stop: 56030, Start Num: 30

Candidate Starts for Holliday_98:

(28, 55815), (Start: 30 @55851 has 46 MA's), (31, 55860), (33, 55881), (34, 55890),

Gene: Horus_100 Start: 53866, Stop: 54054, Start Num: 30

Candidate Starts for Horus_100:

(Start: 29 @53857 has 1 MA's), (Start: 30 @53866 has 46 MA's), (36, 53917), (37, 53920), (38, 53926), (41, 53947), (47, 54046),

Gene: InLimbo_70 Start: 40758, Stop: 41033, Start Num: 15

Candidate Starts for InLimbo_70:

(Start: 6 @40671 has 2 MA's), (8, 40689), (Start: 13 @40746 has 1 MA's), (14, 40749), (Start: 15 @40758 has 1 MA's), (Start: 30 @40851 has 46 MA's), (32, 40860), (34, 40887), (42, 40929), (45, 40998), (46, 41001),

Gene: JCole_68 Start: 43436, Stop: 43618, Start Num: 30

Candidate Starts for JCole_68:

(5, 43226), (12, 43319), (Start: 16 @43346 has 15 MA's), (25, 43394), (Start: 30 @43436 has 46 MA's), (32, 43445), (34, 43472), (35, 43478), (42, 43514), (44, 43574),

Gene: Jablanski_81 Start: 52986, Stop: 53174, Start Num: 30

Candidate Starts for Jablanski_81:

(Start: 30 @52986 has 46 MA's), (31, 52995), (32, 52998), (34, 53025), (42, 53067), (45, 53136), (46, 53139),

Gene: Jalleen_74 Start: 44715, Stop: 44888, Start Num: 32

Candidate Starts for Jalleen_74:

(4, 44484), (12, 44589), (Start: 16 @44616 has 15 MA's), (25, 44664), (Start: 30 @44706 has 46 MA's), (32, 44715), (34, 44742), (35, 44748), (42, 44784), (44, 44844),

Gene: Kamaru_94 Start: 51725, Stop: 51913, Start Num: 30

Candidate Starts for Kamaru_94:

(Start: 29 @51716 has 1 MA's), (Start: 30 @51725 has 46 MA's), (36, 51776), (37, 51779), (38, 51785), (47, 51905),

Gene: Kenna_96 Start: 52363, Stop: 52614, Start Num: 21

Candidate Starts for Kenna_96:

(17, 52348), (Start: 21 @52363 has 1 MA's), (Start: 29 @52417 has 1 MA's), (Start: 30 @52426 has 46 MA's), (36, 52477), (37, 52480), (38, 52486), (47, 52606),

Gene: Kuwabara_90 Start: 53031, Stop: 53219, Start Num: 30

Candidate Starts for Kuwabara_90:

(Start: 29 @53022 has 1 MA's), (Start: 30 @53031 has 46 MA's), (36, 53082), (37, 53085), (38, 53091), (41, 53112), (47, 53211),

Gene: Lamberg_67 Start: 43185, Stop: 43457, Start Num: 16

Candidate Starts for Lamberg_67:

(12, 43158), (Start: 16 @43185 has 15 MA's), (25, 43233), (Start: 30 @43275 has 46 MA's), (32, 43284), (34, 43311), (35, 43317), (42, 43353), (44, 43413),

Gene: Leroy_100 Start: 52061, Stop: 52249, Start Num: 30

Candidate Starts for Leroy_100:

(Start: 29 @52052 has 1 MA's), (Start: 30 @52061 has 46 MA's), (36, 52112), (37, 52115), (38, 52121), (41, 52142),

Gene: Lilas_75 Start: 51835, Stop: 52017, Start Num: 30

Candidate Starts for Lilas_75:

(3, 51685), (Start: 30 @51835 has 46 MA's), (32, 51844), (34, 51871), (40, 51889), (42, 51913), (46, 51985),

Gene: LitninMcQueen_107 Start: 55490, Stop: 55678, Start Num: 30

Candidate Starts for LitninMcQueen_107:

(18, 55418), (Start: 29 @55481 has 1 MA's), (Start: 30 @55490 has 46 MA's), (36, 55541), (37, 55544), (38, 55550),

Gene: LonelyBoi_77 Start: 53074, Stop: 53259, Start Num: 30

Candidate Starts for LonelyBoi_77:

(Start: 30 @53074 has 46 MA's), (32, 53083), (34, 53110), (42, 53152), (45, 53221), (46, 53224),

Gene: Lton_69 Start: 40177, Stop: 40359, Start Num: 30

Candidate Starts for Lton_69:

(Start: 6 @39997 has 2 MA's), (8, 40015), (Start: 13 @40072 has 1 MA's), (14, 40075), (Start: 15 @40084 has 1 MA's), (Start: 30 @40177 has 46 MA's), (32, 40186), (34, 40213), (42, 40255), (45, 40324),

Gene: Lucky10_68 Start: 42097, Stop: 42402, Start Num: 6

Candidate Starts for Lucky10_68:

(Start: 6 @42097 has 2 MA's), (8, 42115), (Start: 30 @42220 has 46 MA's), (32, 42229), (34, 42256), (42, 42298), (46, 42370),

Gene: Lutum_102 Start: 53745, Stop: 53933, Start Num: 30

Candidate Starts for Lutum_102:

(17, 53667), (Start: 21 @53682 has 1 MA's), (Start: 29 @53736 has 1 MA's), (Start: 30 @53745 has 46 MA's), (36, 53796), (37, 53799), (38, 53805), (47, 53925),

Gene: Malisha_94 Start: 54874, Stop: 55074, Start Num: 30

Candidate Starts for Malisha_94:

(Start: 30 @54874 has 46 MA's), (32, 54883), (34, 54910), (42, 54952), (43, 54970), (45, 55021),

Gene: Matteo_64 Start: 42430, Stop: 42702, Start Num: 16

Candidate Starts for Matteo_64:

(4, 42298), (12, 42403), (Start: 16 @42430 has 15 MA's), (25, 42478), (Start: 30 @42520 has 46 MA's), (32, 42529), (34, 42556), (35, 42562), (42, 42598), (44, 42658),

Gene: Mocha12_71 Start: 44676, Stop: 44948, Start Num: 16

Candidate Starts for Mocha12_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: Moosehead_72 Start: 40706, Stop: 40888, Start Num: 30

Candidate Starts for Moosehead_72:

(Start: 30 @40706 has 46 MA's), (32, 40715), (34, 40742), (42, 40784), (46, 40856),

Gene: Morkie_72 Start: 41145, Stop: 41507, Start Num: 6

Candidate Starts for Morkie_72:

(Start: 6 @41145 has 2 MA's), (8, 41163), (Start: 13 @41220 has 1 MA's), (14, 41223), (Start: 15 @41232 has 1 MA's), (Start: 30 @41325 has 46 MA's), (32, 41334), (34, 41361), (42, 41403), (45, 41472), (46, 41475),

Gene: MortyNRick_94 Start: 53085, Stop: 53273, Start Num: 30

Candidate Starts for MortyNRick_94:

(Start: 29 @53076 has 1 MA's), (Start: 30 @53085 has 46 MA's), (36, 53136), (37, 53139), (38, 53145), (41, 53166), (47, 53265),

Gene: Nettuno_68 Start: 43094, Stop: 43366, Start Num: 16

Candidate Starts for Nettuno_68:

(12, 43067), (Start: 16 @43094 has 15 MA's), (25, 43142), (Start: 30 @43184 has 46 MA's), (32, 43193), (34, 43220), (35, 43226), (42, 43262), (44, 43322),

Gene: ODay_114 Start: 57604, Stop: 57783, Start Num: 30

Candidate Starts for ODay_114:

(26, 57565), (Start: 30 @57604 has 46 MA's), (31, 57613), (33, 57634), (34, 57643),

Gene: OneDirection_66 Start: 38739, Stop: 38921, Start Num: 30

Candidate Starts for OneDirection_66:

(Start: 6 @38559 has 2 MA's), (8, 38577), (Start: 13 @38634 has 1 MA's), (14, 38637), (Start: 15 @38646 has 1 MA's), (Start: 30 @38739 has 46 MA's), (32, 38748), (34, 38775), (42, 38817), (45, 38886),

Gene: Pepperoni_65 Start: 39772, Stop: 40047, Start Num: 15

Candidate Starts for Pepperoni_65:

(Start: 6 @39685 has 2 MA's), (8, 39703), (Start: 13 @39760 has 1 MA's), (14, 39763), (Start: 15 @39772 has 1 MA's), (Start: 30 @39865 has 46 MA's), (32, 39874), (34, 39901), (42, 39943), (45, 40012),

Gene: Periwinkle_107 Start: 54868, Stop: 55056, Start Num: 30

Candidate Starts for Periwinkle_107:

(Start: 29 @54859 has 1 MA's), (Start: 30 @54868 has 46 MA's), (36, 54919), (37, 54922), (38, 54928), (41, 54949), (47, 55048),

Gene: Phabuloso_106 Start: 54304, Stop: 54492, Start Num: 30

Candidate Starts for Phabuloso_106:

(9, 54136), (18, 54232), (Start: 29 @54295 has 1 MA's), (Start: 30 @54304 has 46 MA's), (36, 54355), (37, 54358), (38, 54364), (47, 54484),

Gene: PhaoMing_79 Start: 48105, Stop: 48305, Start Num: 30

Candidate Starts for PhaoMing_79:

(27, 48066), (Start: 30 @48105 has 46 MA's), (33, 48135), (34, 48141), (42, 48183), (46, 48255),

Gene: Phistory_103 Start: 52048, Stop: 52305, Start Num: 19

Candidate Starts for Phistory_103:

(Start: 19 @52048 has 1 MA's), (Start: 29 @52108 has 1 MA's), (Start: 30 @52117 has 46 MA's), (37, 52171), (38, 52177), (41, 52198),

Gene: PhorbesPhlower_70 Start: 40720, Stop: 40902, Start Num: 30

Candidate Starts for PhorbesPhlower_70:

(Start: 6 @40540 has 2 MA's), (8, 40558), (Start: 13 @40615 has 1 MA's), (14, 40618), (Start: 15 @40627 has 1 MA's), (Start: 30 @40720 has 46 MA's), (32, 40729), (34, 40756), (42, 40798), (45, 40867), (46, 40870),

Gene: Pickett_68 Start: 43479, Stop: 43661, Start Num: 30

Candidate Starts for Pickett_68:

(5, 43269), (12, 43362), (Start: 16 @43389 has 15 MA's), (25, 43437), (Start: 30 @43479 has 46 MA's), (32, 43488), (34, 43515), (35, 43521), (42, 43557), (44, 43617),

Gene: Posh_78 Start: 51759, Stop: 51947, Start Num: 30

Candidate Starts for Posh_78:

(Start: 30 @51759 has 46 MA's), (31, 51768), (32, 51771), (34, 51798), (42, 51840), (45, 51909), (46, 51912),

Gene: Pytheas_82 Start: 52985, Stop: 53173, Start Num: 30

Candidate Starts for Pytheas_82:

(Start: 30 @52985 has 46 MA's), (31, 52994), (32, 52997), (34, 53024), (42, 53066), (45, 53135), (46, 53138),

Gene: Sahara_69 Start: 43710, Stop: 43982, Start Num: 16

Candidate Starts for Sahara_69:

(4, 43578), (12, 43683), (Start: 16 @43710 has 15 MA's), (25, 43758), (Start: 30 @43800 has 46 MA's), (32, 43809), (34, 43836), (35, 43842), (42, 43878), (44, 43938),

Gene: Savage_71 Start: 44676, Stop: 44948, Start Num: 16

Candidate Starts for Savage_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: ShawBrad_106 Start: 54124, Stop: 54312, Start Num: 30

Candidate Starts for ShawBrad_106:

(24, 54076), (Start: 29 @54115 has 1 MA's), (Start: 30 @54124 has 46 MA's), (36, 54175), (37, 54178), (38, 54184),

Gene: SoilAssassin_70 Start: 46335, Stop: 46607, Start Num: 16

Candidate Starts for SoilAssassin_70:

(12, 46308), (Start: 16 @46335 has 15 MA's), (25, 46383), (Start: 30 @46425 has 46 MA's), (32, 46434), (34, 46461), (35, 46467), (42, 46503), (44, 46563),

Gene: Spooky_107 Start: 56283, Stop: 56483, Start Num: 30

Candidate Starts for Spooky_107:

(Start: 30 @56283 has 46 MA's), (34, 56319), (42, 56361), (43, 56379), (45, 56430),

Gene: Sproutie_71 Start: 44676, Stop: 44948, Start Num: 16

Candidate Starts for Sproutie_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: TuertoX_71 Start: 44676, Stop: 44948, Start Num: 16

Candidate Starts for TuertoX_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: Whiteclaw_71 Start: 44676, Stop: 44948, Start Num: 16

Candidate Starts for Whiteclaw_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),

Gene: Whitney_100 Start: 54636, Stop: 54824, Start Num: 30

Candidate Starts for Whitney_100:

(Start: 29 @54627 has 1 MA's), (Start: 30 @54636 has 46 MA's), (36, 54687), (37, 54690), (38, 54696),

Gene: Wrigley_80 Start: 51342, Stop: 51530, Start Num: 30

Candidate Starts for Wrigley_80:

(Start: 30 @51342 has 46 MA's), (31, 51351), (32, 51354), (34, 51381), (42, 51423), (45, 51492), (46, 51495),

Gene: Yeet412_69 Start: 45229, Stop: 45411, Start Num: 30

Candidate Starts for Yeet412_69:

(12, 45112), (Start: 16 @45139 has 15 MA's), (25, 45187), (Start: 30 @45229 has 46 MA's), (32, 45238), (34, 45265), (35, 45271), (42, 45307), (44, 45367),

Gene: Yinzer_71 Start: 44775, Stop: 44948, Start Num: 32

Candidate Starts for Yinzer_71:

(12, 44649), (Start: 16 @44676 has 15 MA's), (25, 44724), (Start: 30 @44766 has 46 MA's), (32, 44775), (34, 44802), (35, 44808), (42, 44844), (44, 44904),