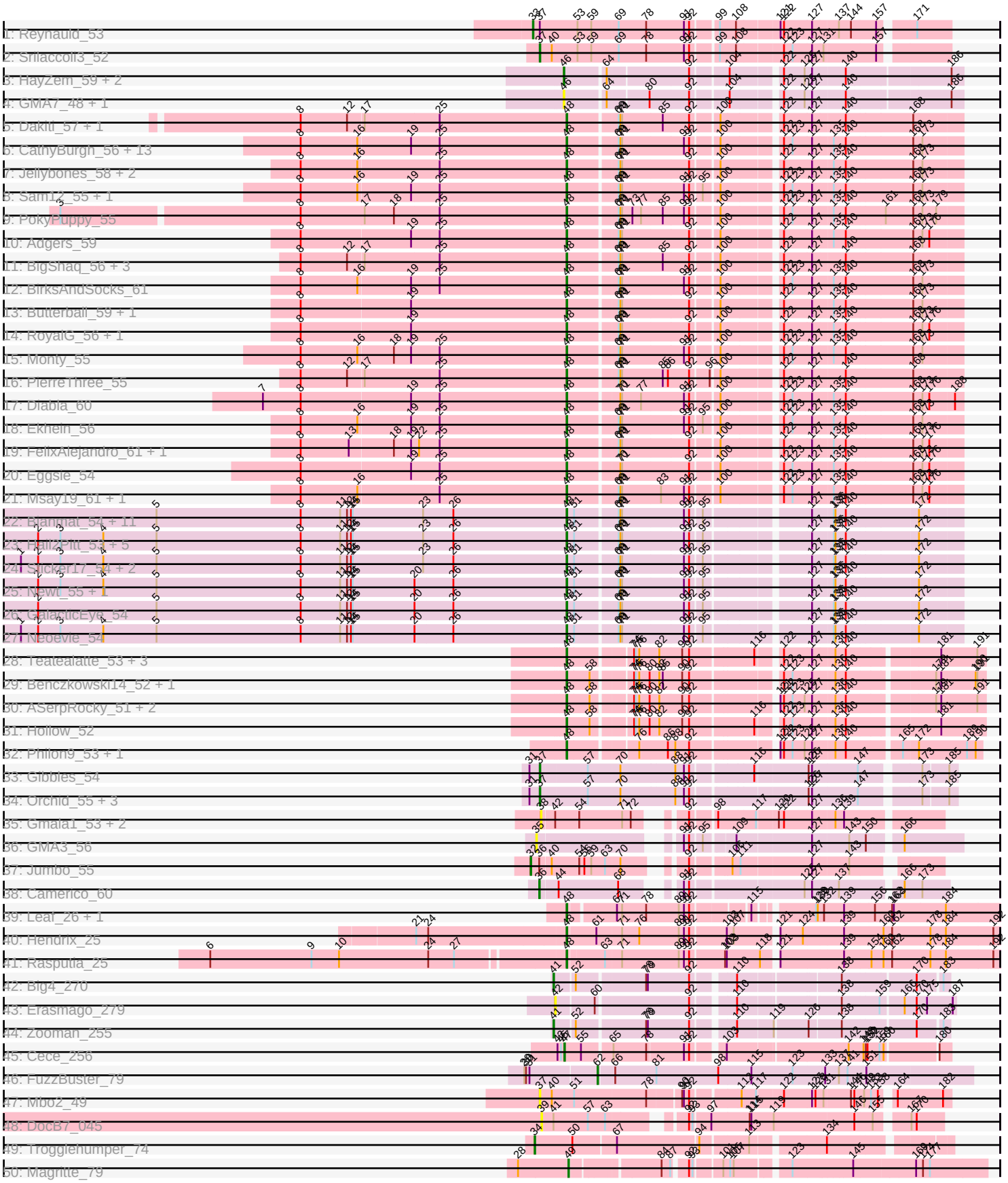
Pham 345562


1: Reynauld_53
2: Smaccoli3_52
3: HayZem_59 + 2
4: GMA7_48 + 1
5: Dakiti_57 + 1
6: CathyBurgh_56 + 13
7: Jellybones_58 + 2
8: Sam12_55 + 1
9: PokyPuppy_55
10: Adgers_59
11: BigShaq_56 + 3
12: BirksAndSocks_61
13: Butterball_59 + 1
14: RoyalG_56 + 1
15: Monty_55
16: PierreThree_55
17: Diabla_60
18: Ekhein_56
19: FelixAlejandro_61 + 1
20: Eggsie_54
21: Msay19_61 + 1
22: Brannat_54 + 11
23: Hall2Pitt_53 + 5
24: Stickler17_54 + 2
25: Newt_55 + 1
26: GalacticEye_54
27: NBoevie_54
28: Tealealatte_53 + 3
29: Benczkowski14_52 + 1
30: ASerpRocky_51 + 2
31: Hollow_52
32: Phillon9_53 + 1
33: Gibbles_54
34: Orchid_55 + 3
35: Gmala1_53 + 2
36: GMA3_56
37: Jumbo_55
38: Camerico_60
39: Leaf_26 + 1
40: Hendrix_25
41: Rasputia_25
42: Big4_270
43: Erasmago_279
44: Zooman_255
45: Cece_256
46: FuzzBuster_79
47: Mbo2_49
48: DocB7_045
49: Trogglehumper_74
50: Magritte_79

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 345562 Report

This analysis was run 11/14/26 on database version 672.

Pham number 345562 has 109 members, 12 are drafts.

Phages represented in each track:
• Track 1 : Reynauld_53
• Track 2 : Srilaccoli3_52
• Track 3 : HayZem_59, Austin_58, Amore2_59
• Track 4 : GMA7_48, GTE7_47
• Track 5 : Dakiti_57, Chelms_56
• Track 6 : CathyBurgh_56, Squibbles_55, John316_59, GourdThymes_56, Kelzog_58, RemRem_57, Worcestershire_55, Hotorobo_56, Barbochs_54, Flakey_55, Gorko_55, Lizzo_56, Breezic_56, Beaver_59
• Track 7 : Jellybones_58, CinnamonToast_62, BillyBobJr_62
• Track 8 : Sam12_55, Exiguo_55
• Track 9 : PokyPuppy_55
• Track 10 : Adgers_59
• Track 11 : BigShaq_56, Linetti_56, BenoitCattle_56, Crete_57
• Track 12 : BirksAndSocks_61
• Track 13 : Butterball_59, Boneham_60
• Track 14 : RoyalG_56, SteveFrench_55
• Track 15 : Monty_55
• Track 16 : PierreThree_55
• Track 17 : Diabla_60
• Track 18 : Ekhein_56
• Track 19 : FelixAlejandro_61, Sombrero_57
• Track 20 : Eggsie_54
• Track 21 : Msay19_61, Poland_61
• Track 22 : Bianmat_54, Jormungandr_54, Charianelly_54, Nimi13_54, Shelley_54, MrWormie_54, Lahirium_54, Kaseim_54, Lidong_54, Guillaume_54, Berries_54, Jams_54
• Track 23 : Hail2Pitt_53, Luker_55, Anamika_54, Damp_54, Hello_54, Minos_55
• Track 24 : Sticker17_54, Harambe_54, Woes_54
• Track 25 : Newt_55, Teal_54
• Track 26 : GalacticEye_54
• Track 27 : Neoevie_54
• Track 28 : Teatealatte_53, Tredge_53, Teech_53, Niagara_52
• Track 29 : Benczkowski14_52, Katyusha_52
• Track 30 : ASerpRocky_51, Demosthenes_51, Kvothe_51
• Track 31 : Hollow_52
• Track 32 : Philon9_53, Vitaenoii_53
• Track 33 : Gibbles_54

• Track 34 : Orchid_55, RobinSparkles_59, PatrickStar_56, Kampe_56
• Track 35 : Gmala1_53, GordDuk1_57, GordTnk2_58
• Track 36 : GMA3_56
• Track 37 : Jumbo_55
• Track 38 : Camerico_60
• Track 39 : Leaf_26, Dewdrop_26
• Track 40 : Hendrix_25
• Track 41 : Rasputia_25
• Track 42 : Big4_270
• Track 43 : Erasmago_279
• Track 44 : Zooman_255
• Track 45 : Cece_256
• Track 46 : FuzzBuster_79
• Track 47 : Mbo2_49
• Track 48 : DocB7_045
• Track 49 : Trogglehumper_74
• Track 50 : Magritte_79

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

The start number called the most often in the published annotations is 48, it was called in 79 of the 97 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ASerpRocky_51, Adgers_59, Anamika_54, Barbochs_54, Beaver_59, Benczkowski14_52, BenoitCattle_56, Berries_54, Bianmat_54, BigShaq_56, BillyBobJr_62, BirksAndSocks_61, Boneham_60, Breezic_56, Butterball_59, CathyBurgh_56, Charianelly_54, Chelms_56, CinnamonToast_62, Crete_57, Dakiti_57, Damp_54, Demosthenes_51, Dewdrop_26, Diabla_60, Eggsie_54, Ekhein_56, Exiguo_55, FelixAlejandro_61, Flakey_55, GalacticEye_54, Gorko_55, GourdThymes_56, Guillaume_54, Hail2Pitt_53, Harambe_54, Hello_54, Hendrix_25, Hollow_52, Hotorobo_56, Jams_54, Jellybones_58, John316_59, Jormungandr_54, Kaseim_54, Katyusha_52, Kelzog_58, Kvothe_51, Lahirium_54, Leaf_26, Lidong_54, Linetti_56, Lizzo_56, Luker_55, Minos_55, Monty_55, MrWormie_54, Msay19_61, Neoevie_54, Newt_55, Niagara_52, Nimi13_54, Philon9_53, PierreThree_55, PokyPuppy_55, Poland_61, Rasputia_25, RemRem_57, RoyalG_56, Sam12_55, Shelley_54, Sombrero_57, Squibbles_55, SteveFrench_55, Sticker17_54, Teal_54, Teatealatte_53, Teech_53, Tredge_53, Vitaenoii_53, Woes_54, Worcestershire_55,

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

Genes that do not have the "Most Annotated" start:
• Amore2_59, Austin_58, Big4_270, Camerico_60, Cece_256, DocB7_045, Erasmago_279, FuzzBuster_79, GMA3_56, GMA7_48, GTE7_47, Gibbles_54, Gmala1_53, GordDuk1_57, GordTnk2_58, HayZem_59, Jumbo_55, Kampe_56, Magritte_79, Mbo2_49, Orchid_55, PatrickStar_56, Reynauld_53, RobinSparkles_59, Srilaccoli3_52, Trogglehumper_74, Zooman_255,

Summary by start number:

Start 32:
• Found in 1 of 109 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jumbo_55 (DF3),

Start 33:
• Found in 1 of 109 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Reynauld_53 (CH),

Start 34:
• Found in 1 of 109 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Trogglehumper_74 (singleton),

Start 35:
• Found in 1 of 109 (0.9%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA3_56 (DF2),

Start 36:
• Found in 2 of 109 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Camerico_60 (DF4),

Start 37:
• Found in 8 of 109 (7.3%) of genes in pham
• Manual Annotations of this start: 6 of 97
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Gibbles_54 (CX), Kampe_56 (CX), Mbo2_49 (singleton), Orchid_55 (CX), PatrickStar_56 (CX), RobinSparkles_59 (CX), Srilaccoli3_52 (CH),

Start 38:
• Found in 3 of 109 (2.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gmala1_53 (DF1), GordDuk1_57 (DF1), GordTnk2_58 (DF1),

Start 39:
• Found in 1 of 109 (0.9%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DocB7_045 (singleton),

Start 41:

• Found in 3 of 109 (2.8%) of genes in pham
• Manual Annotations of this start: 2 of 97
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Big4_270 (GD2), Zooman_255 (GD2),

Start 42:
• Found in 4 of 109 (3.7%) of genes in pham
• No Manual Annotations of this start.
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Erasmago_279 (GD2),

Start 46:
• Found in 5 of 109 (4.6%) of genes in pham
• Manual Annotations of this start: 3 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amore2_59 (CS1), Austin_58 (CS1), GMA7_48 (CS1), GTE7_47 (CS1), HayZem_59 (CS1),

Start 47:
• Found in 1 of 109 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Cece_256 (GD3),

Start 48:
• Found in 82 of 109 (75.2%) of genes in pham
• Manual Annotations of this start: 79 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ASerpRocky_51 (CS4), Adgers_59 (CS2), Anamika_54 (CS3), Barbochs_54 (CS2), Beaver_59 (CS2), Benczkowski14_52 (CS4), BenoitCattle_56 (CS2), Berries_54 (CS3), Bianmat_54 (CS3), BigShaq_56 (CS2), BillyBobJr_62 (CS2), BirksAndSocks_61 (CS2), Boneham_60 (CS2), Breezic_56 (CS2), Butterball_59 (CS2), CathyBurgh_56 (CS2), Charianelly_54 (CS3), Chelms_56 (CS2), CinnamonToast_62 (CS2), Crete_57 (CS2), Dakiti_57 (CS2), Damp_54 (CS3), Demosthenes_51 (CS4), Dewdrop_26 (GC), Diabla_60 (CS2), Eggsie_54 (CS2), Ekhein_56 (CS2), Exiguo_55 (CS2), FelixAlejandro_61 (CS2), Flakey_55 (CS2), GalacticEye_54 (CS3), Gorko_55 (CS2), GourdThymes_56 (CS2), Guillaume_54 (CS3), Hail2Pitt_53 (CS3), Harambe_54 (CS3), Hello_54 (CS3), Hendrix_25 (GC), Hollow_52 (CS4), Hotorobo_56 (CS2), Jams_54 (CS3), Jellybones_58 (CS2), John316_59 (CS2), Jormungandr_54 (CS3), Kaseim_54 (CS3), Katyusha_52 (CS4), Kelzog_58 (CS2), Kvothe_51 (CS4), Lahirium_54 (CS3), Leaf_26 (GC), Lidong_54 (CS3), Linetti_56 (CS2), Lizzo_56 (CS2), Luker_55 (CS3), Minos_55 (CS3), Monty_55 (CS2), MrWormie_54 (CS3), Msay19_61 (CS2), Neoevie_54 (CS3), Newt_55 (CS3), Niagara_52 (CS4), Nimi13_54 (CS3), Philon9_53 (CS4), PierreThree_55 (CS2), PokyPuppy_55 (CS2), Poland_61 (CS2), Rasputia_25 (GC), RemRem_57 (CS2), RoyalG_56 (CS2), Sam12_55 (CS2), Shelley_54 (CS3), Sombrero_57 (CS2), Squibbles_55 (CS2), SteveFrench_55 (CS2), Sticker17_54 (CS3), Teal_54 (CS3), Teatealatte_53 (CS4), Teech_53 (CS4), Tredge_53 (CS4), Vitaenoii_53 (CS4), Woes_54 (CS3), Worcestershire_55 (CS2),

Start 49:
• Found in 1 of 109 (0.9%) of genes in pham

• Manual Annotations of this start: 1 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Magritte_79 (singleton),

Start 62:
• Found in 1 of 109 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 97
• Called 100.0% of time when present
• Phage (with cluster) where this start called: FuzzBuster_79 (GM),

Summary by clusters:

There are 15 clusters represented in this pham: singleton, GD3, DF4, CH, DF1, GD2, DF3, DF2, CX, GC, CS4, GM, CS1, CS3, CS2,

Info for manual annotations of cluster CH:
•Start number 33 was manually annotated 1 time for cluster CH.
•Start number 37 was manually annotated 1 time for cluster CH.

Info for manual annotations of cluster CS1:
•Start number 46 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS2:
•Start number 48 was manually annotated 38 times for cluster CS2.

Info for manual annotations of cluster CS3:
•Start number 48 was manually annotated 25 times for cluster CS3.

Info for manual annotations of cluster CS4:
•Start number 48 was manually annotated 12 times for cluster CS4.

Info for manual annotations of cluster CX:
•Start number 37 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster DF3:
•Start number 32 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:
•Start number 36 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster GC:
•Start number 48 was manually annotated 4 times for cluster GC.

Info for manual annotations of cluster GD2:
•Start number 41 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:
•Start number 47 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GM:
•Start number 62 was manually annotated 1 time for cluster GM.

Gene Information:

Gene: ASerpRocky_51 Start: 50470, Stop: 49820, Start Num: 48
Candidate Starts for ASerpRocky_51:
(Start: 48 @50470 has 79 MA's), (58, 50431), (74, 50371), (75, 50368), (76, 50362), (80, 50347), (82, 50332), (90, 50296), (92, 50284), (121, 50152), (122, 50146), (123, 50131), (125, 50110), (127, 50098), (136, 50062), (140, 50044), (179, 49906), (181, 49897), (191, 49834),

Gene: Adgers_59 Start: 49923, Stop: 49297, Start Num: 48
Candidate Starts for Adgers_59:
(8, 50382), (19, 50193), (25, 50145), (Start: 48 @49923 has 79 MA's), (69, 49845), (70, 49842), (71, 49839), (92, 49725), (100, 49683), (122, 49593), (127, 49545), (135, 49512), (140, 49491), (168, 49380), (173, 49365), (176, 49353),

Gene: Amore2_59 Start: 50370, Stop: 49750, Start Num: 46
Candidate Starts for Amore2_59:
(Start: 46 @50370 has 3 MA's), (64, 50304), (92, 50172), (104, 50115), (122, 50040), (125, 50004), (127, 49992), (140, 49938), (186, 49770),

Gene: Anamika_54 Start: 50720, Stop: 50094, Start Num: 48
Candidate Starts for Anamika_54:
(2, 51641), (3, 51602), (4, 51527), (5, 51434), (8, 51182), (11, 51113), (12, 51101), (14, 51095), (15, 51092), (23, 50969), (26, 50918), (Start: 48 @50720 has 79 MA's), (51, 50708), (69, 50642), (70, 50639), (71, 50636), (91, 50531), (92, 50522), (95, 50504), (127, 50342), (135, 50309), (136, 50306), (140, 50288), (172, 50168),

Gene: Austin_58 Start: 50368, Stop: 49748, Start Num: 46
Candidate Starts for Austin_58:
(Start: 46 @50368 has 3 MA's), (64, 50302), (92, 50170), (104, 50113), (122, 50038), (125, 50002), (127, 49990), (140, 49936), (186, 49768),

Gene: Barbochs_54 Start: 49467, Stop: 48841, Start Num: 48
Candidate Starts for Barbochs_54:
(8, 49926), (16, 49827), (19, 49737), (25, 49689), (Start: 48 @49467 has 79 MA's), (69, 49389), (70, 49386), (71, 49383), (91, 49278), (92, 49269), (100, 49227), (122, 49137), (123, 49122), (127, 49089), (135, 49056), (140, 49035), (168, 48924), (173, 48909),

Gene: Beaver_59 Start: 51237, Stop: 50611, Start Num: 48
Candidate Starts for Beaver_59:
(8, 51696), (16, 51597), (19, 51507), (25, 51459), (Start: 48 @51237 has 79 MA's), (69, 51159), (70, 51156), (71, 51153), (91, 51048), (92, 51039), (100, 50997), (122, 50907), (123, 50892), (127, 50859), (135, 50826), (140, 50805), (168, 50694), (173, 50679),

Gene: Benczkowski14_52 Start: 50741, Stop: 50091, Start Num: 48
Candidate Starts for Benczkowski14_52:
(Start: 48 @50741 has 79 MA's), (58, 50702), (74, 50642), (75, 50639), (76, 50633), (80, 50618), (82, 50603), (85, 50597), (90, 50567), (92, 50555), (122, 50417), (123, 50402), (127, 50369), (136, 50333), (140, 50315), (179, 50177), (181, 50168), (190, 50108), (191, 50105),

Gene: BenoitCattle_56 Start: 49874, Stop: 49248, Start Num: 48

Candidate Starts for BenoitCattle_56:
(8, 50333), (12, 50252), (17, 50225), (25, 50096), (Start: 48 @49874 has 79 MA's), (69, 49796), (70, 49793), (71, 49790), (85, 49721), (92, 49676), (100, 49634), (122, 49544), (127, 49496), (140, 49442), (168, 49331),

Gene: Berries_54 Start: 50692, Stop: 50066, Start Num: 48
Candidate Starts for Berries_54:
(5, 51406), (8, 51154), (11, 51085), (12, 51073), (14, 51067), (15, 51064), (23, 50941), (26, 50890), (Start: 48 @50692 has 79 MA's), (51, 50680), (69, 50614), (70, 50611), (71, 50608), (91, 50503), (92, 50494), (95, 50476), (127, 50314), (135, 50281), (136, 50278), (140, 50260), (172, 50140),

Gene: Bianmat_54 Start: 50732, Stop: 50106, Start Num: 48
Candidate Starts for Bianmat_54:
(5, 51446), (8, 51194), (11, 51125), (12, 51113), (14, 51107), (15, 51104), (23, 50981), (26, 50930), (Start: 48 @50732 has 79 MA's), (51, 50720), (69, 50654), (70, 50651), (71, 50648), (91, 50543), (92, 50534), (95, 50516), (127, 50354), (135, 50321), (136, 50318), (140, 50300), (172, 50180),

Gene: Big4_270 Start: 153748, Stop: 154353, Start Num: 41
Candidate Starts for Big4_270:
(Start: 41 @153748 has 2 MA's), (52, 153781), (78, 153892), (79, 153895), (92, 153964), (110, 154024), (138, 154183), (170, 154303), (183, 154342),

Gene: BigShaq_56 Start: 49879, Stop: 49253, Start Num: 48
Candidate Starts for BigShaq_56:
(8, 50338), (12, 50257), (17, 50230), (25, 50101), (Start: 48 @49879 has 79 MA's), (69, 49801), (70, 49798), (71, 49795), (85, 49726), (92, 49681), (100, 49639), (122, 49549), (127, 49501), (140, 49447), (168, 49336),

Gene: BillyBobJr_62 Start: 51547, Stop: 50921, Start Num: 48
Candidate Starts for BillyBobJr_62:
(8, 52006), (16, 51907), (25, 51769), (Start: 48 @51547 has 79 MA's), (69, 51469), (70, 51466), (71, 51463), (92, 51349), (100, 51307), (122, 51217), (127, 51169), (135, 51136), (140, 51115), (168, 51004), (173, 50989),

Gene: BirksAndSocks_61 Start: 51587, Stop: 50961, Start Num: 48
Candidate Starts for BirksAndSocks_61:
(8, 52046), (16, 51947), (19, 51857), (25, 51809), (Start: 48 @51587 has 79 MA's), (69, 51509), (70, 51506), (71, 51503), (91, 51398), (92, 51389), (100, 51347), (122, 51257), (123, 51242), (127, 51209), (135, 51176), (140, 51155), (168, 51044), (173, 51029),

Gene: Boneham_60 Start: 51488, Stop: 50862, Start Num: 48
Candidate Starts for Boneham_60:
(8, 51947), (19, 51758), (Start: 48 @51488 has 79 MA's), (69, 51410), (70, 51407), (71, 51404), (92, 51290), (100, 51248), (122, 51158), (127, 51110), (135, 51077), (140, 51056), (168, 50945), (173, 50930),

Gene: Breezic_56 Start: 49480, Stop: 48854, Start Num: 48
Candidate Starts for Breezic_56:
(8, 49939), (16, 49840), (19, 49750), (25, 49702), (Start: 48 @49480 has 79 MA's), (69, 49402), (70, 49399), (71, 49396), (91, 49291), (92, 49282), (100, 49240), (122, 49150), (123, 49135), (127, 49102), (135, 49069), (140, 49048), (168, 48937), (173, 48922),

Gene: Butterball_59 Start: 51493, Stop: 50867, Start Num: 48

Candidate Starts for Butterball_59:
(8, 51952), (19, 51763), (Start: 48 @51493 has 79 MA's), (69, 51415), (70, 51412), (71, 51409), (92, 51295), (100, 51253), (122, 51163), (127, 51115), (135, 51082), (140, 51061), (168, 50950), (173, 50935),

Gene: Camerico_60 Start: 52716, Stop: 52111, Start Num: 36
Candidate Starts for Camerico_60:
(Start: 36 @52716 has 1 MA's), (44, 52686), (68, 52587), (91, 52524), (92, 52515), (125, 52335), (127, 52323), (137, 52281), (166, 52185), (173, 52155),

Gene: CathyBurgh_56 Start: 50057, Stop: 49431, Start Num: 48
Candidate Starts for CathyBurgh_56:
(8, 50516), (16, 50417), (19, 50327), (25, 50279), (Start: 48 @50057 has 79 MA's), (69, 49979), (70, 49976), (71, 49973), (91, 49868), (92, 49859), (100, 49817), (122, 49727), (123, 49712), (127, 49679), (135, 49646), (140, 49625), (168, 49514), (173, 49499),

Gene: Cece_256 Start: 150473, Stop: 151066, Start Num: 47
Candidate Starts for Cece_256:
(43, 150461), (45, 150467), (Start: 47 @150473 has 1 MA's), (55, 150500), (65, 150545), (78, 150602), (91, 150662), (92, 150671), (103, 150716), (142, 150908), (148, 150932), (150, 150935), (152, 150938), (159, 150959), (160, 150965), (180, 151046),

Gene: Charianelly_54 Start: 50442, Stop: 49816, Start Num: 48
Candidate Starts for Charianelly_54:
(5, 51156), (8, 50904), (11, 50835), (12, 50823), (14, 50817), (15, 50814), (23, 50691), (26, 50640), (Start: 48 @50442 has 79 MA's), (51, 50430), (69, 50364), (70, 50361), (71, 50358), (91, 50253), (92, 50244), (95, 50226), (127, 50064), (135, 50031), (136, 50028), (140, 50010), (172, 49890),

Gene: Chelms_56 Start: 50023, Stop: 49397, Start Num: 48
Candidate Starts for Chelms_56:
(8, 50482), (12, 50401), (17, 50374), (25, 50245), (Start: 48 @50023 has 79 MA's), (69, 49945), (70, 49942), (71, 49939), (85, 49870), (92, 49825), (100, 49783), (122, 49693), (127, 49645), (140, 49591), (168, 49480),

Gene: CinnamonToast_62 Start: 51547, Stop: 50921, Start Num: 48
Candidate Starts for CinnamonToast_62:
(8, 52006), (16, 51907), (25, 51769), (Start: 48 @51547 has 79 MA's), (69, 51469), (70, 51466), (71, 51463), (92, 51349), (100, 51307), (122, 51217), (127, 51169), (135, 51136), (140, 51115), (168, 51004), (173, 50989),

Gene: Crete_57 Start: 50145, Stop: 49519, Start Num: 48
Candidate Starts for Crete_57:
(8, 50604), (12, 50523), (17, 50496), (25, 50367), (Start: 48 @50145 has 79 MA's), (69, 50067), (70, 50064), (71, 50061), (85, 49992), (92, 49947), (100, 49905), (122, 49815), (127, 49767), (140, 49713), (168, 49602),

Gene: Dakiti_57 Start: 50891, Stop: 50265, Start Num: 48
Candidate Starts for Dakiti_57:
(8, 51350), (12, 51269), (17, 51242), (25, 51113), (Start: 48 @50891 has 79 MA's), (69, 50813), (70, 50810), (71, 50807), (85, 50738), (92, 50693), (100, 50651), (122, 50561), (127, 50513), (140, 50459), (168, 50348),

Gene: Damp_54 Start: 49606, Stop: 48980, Start Num: 48

Candidate Starts for Damp_54:
(2, 50527), (3, 50488), (4, 50413), (5, 50320), (8, 50068), (11, 49999), (12, 49987), (14, 49981), (15, 49978), (23, 49855), (26, 49804), (Start: 48 @49606 has 79 MA's), (51, 49594), (69, 49528), (70, 49525), (71, 49522), (91, 49417), (92, 49408), (95, 49390), (127, 49228), (135, 49195), (136, 49192), (140, 49174), (172, 49054),

Gene: Demosthenes_51 Start: 50446, Stop: 49796, Start Num: 48
Candidate Starts for Demosthenes_51:
(Start: 48 @50446 has 79 MA's), (58, 50407), (74, 50347), (75, 50344), (76, 50338), (80, 50323), (82, 50308), (90, 50272), (92, 50260), (121, 50128), (122, 50122), (123, 50107), (125, 50086), (127, 50074), (136, 50038), (140, 50020), (179, 49882), (181, 49873), (191, 49810),

Gene: Dewdrop_26 Start: 10810, Stop: 11490, Start Num: 48
Candidate Starts for Dewdrop_26:
(Start: 48 @10810 has 79 MA's), (67, 10882), (71, 10891), (78, 10933), (89, 10990), (91, 10999), (92, 11008), (115, 11095), (129, 11179), (130, 11182), (132, 11191), (139, 11224), (156, 11275), (162, 11305), (163, 11308), (184, 11398),

Gene: Diabla_60 Start: 51546, Stop: 50920, Start Num: 48
Candidate Starts for Diabla_60:
(7, 52071), (8, 52005), (19, 51816), (25, 51768), (Start: 48 @51546 has 79 MA's), (70, 51465), (71, 51462), (77, 51429), (91, 51357), (92, 51348), (100, 51306), (122, 51216), (123, 51201), (127, 51168), (135, 51135), (140, 51114), (168, 51003), (173, 50988), (176, 50976), (188, 50934),

Gene: DocB7_045 Start: 41920, Stop: 41297, Start Num: 39
Candidate Starts for DocB7_045:
(39, 41920), (Start: 41 @41899 has 2 MA's), (57, 41839), (63, 41812), (92, 41707), (93, 41701), (97, 41674), (114, 41608), (115, 41605), (119, 41569), (146, 41431), (155, 41401), (167, 41353), (170, 41344),

Gene: Eggsie_54 Start: 49323, Stop: 48697, Start Num: 48
Candidate Starts for Eggsie_54:
(8, 49782), (19, 49593), (25, 49545), (Start: 48 @49323 has 79 MA's), (70, 49242), (71, 49239), (92, 49125), (100, 49083), (122, 48993), (123, 48978), (127, 48945), (135, 48912), (140, 48891), (168, 48780), (173, 48765), (176, 48753),

Gene: Ekhein_56 Start: 49185, Stop: 48559, Start Num: 48
Candidate Starts for Ekhein_56:
(8, 49644), (16, 49545), (19, 49455), (25, 49407), (Start: 48 @49185 has 79 MA's), (69, 49107), (70, 49104), (71, 49101), (91, 48996), (92, 48987), (95, 48969), (100, 48945), (122, 48855), (123, 48840), (127, 48807), (135, 48774), (140, 48753), (168, 48642), (173, 48627),

Gene: Erasmago_279 Start: 154021, Stop: 154644, Start Num: 42
Candidate Starts for Erasmago_279:
(42, 154021), (60, 154084), (92, 154237), (110, 154297), (138, 154456), (159, 154519), (166, 154555), (170, 154576), (175, 154594), (187, 154639),

Gene: Exiguo_55 Start: 49197, Stop: 48571, Start Num: 48
Candidate Starts for Exiguo_55:
(8, 49656), (16, 49557), (19, 49467), (25, 49419), (Start: 48 @49197 has 79 MA's), (69, 49119), (70, 49116), (71, 49113), (91, 49008), (92, 48999), (95, 48981), (100, 48957), (122, 48867), (123, 48852), (127, 48819), (135, 48786), (140, 48765), (168, 48654), (173, 48639),

Gene: FelixAlejandro_61 Start: 51891, Stop: 51265, Start Num: 48
Candidate Starts for FelixAlejandro_61:
(8, 52350), (13, 52266), (18, 52191), (19, 52161), (22, 52149), (25, 52113), (Start: 48 @51891 has 79 MA's), (69, 51813), (70, 51810), (71, 51807), (92, 51693), (100, 51651), (122, 51561), (127, 51513), (135, 51480), (140, 51459), (168, 51348), (173, 51333), (176, 51321),

Gene: Flakey_55 Start: 50061, Stop: 49435, Start Num: 48
Candidate Starts for Flakey_55:
(8, 50520), (16, 50421), (19, 50331), (25, 50283), (Start: 48 @50061 has 79 MA's), (69, 49983), (70, 49980), (71, 49977), (91, 49872), (92, 49863), (100, 49821), (122, 49731), (123, 49716), (127, 49683), (135, 49650), (140, 49629), (168, 49518), (173, 49503),

Gene: FuzzBuster_79 Start: 49892, Stop: 49251, Start Num: 62
Candidate Starts for FuzzBuster_79:
(29, 50015), (30, 50012), (31, 50006), (Start: 62 @49892 has 1 MA's), (66, 49865), (81, 49793), (98, 49685), (115, 49628), (123, 49556), (133, 49502), (137, 49481), (141, 49466), (151, 49433),

Gene: GMA3_56 Start: 49106, Stop: 48480, Start Num: 35
Candidate Starts for GMA3_56:
(35, 49106), (91, 48908), (92, 48899), (95, 48881), (109, 48836), (127, 48713), (143, 48653), (150, 48626), (166, 48578),

Gene: GMA7_48 Start: 44584, Stop: 43964, Start Num: 46
Candidate Starts for GMA7_48:
(Start: 46 @44584 has 3 MA's), (64, 44518), (80, 44452), (92, 44386), (104, 44329), (122, 44254), (125, 44218), (127, 44206), (140, 44152), (186, 43984),

Gene: GTE7_47 Start: 44615, Stop: 43995, Start Num: 46
Candidate Starts for GTE7_47:
(Start: 46 @44615 has 3 MA's), (64, 44549), (80, 44483), (92, 44417), (104, 44360), (122, 44285), (125, 44249), (127, 44237), (140, 44183), (186, 44015),

Gene: GalacticEye_54 Start: 50403, Stop: 49777, Start Num: 48
Candidate Starts for GalacticEye_54:
(2, 51324), (5, 51117), (8, 50865), (11, 50796), (12, 50784), (14, 50778), (15, 50775), (20, 50667), (26, 50601), (Start: 48 @50403 has 79 MA's), (51, 50391), (69, 50325), (70, 50322), (71, 50319), (91, 50214), (92, 50205), (95, 50187), (127, 50025), (135, 49992), (136, 49989), (140, 49971), (172, 49851),

Gene: Gibbles_54 Start: 48737, Stop: 48075, Start Num: 37
Candidate Starts for Gibbles_54:
(31, 48755), (Start: 37 @48737 has 6 MA's), (57, 48659), (70, 48605), (88, 48512), (91, 48497), (92, 48488), (116, 48392), (126, 48305), (127, 48299), (147, 48221), (173, 48131), (185, 48089),

Gene: Gmala1_53 Start: 46814, Stop: 46224, Start Num: 38
Candidate Starts for Gmala1_53:
(38, 46814), (42, 46793), (54, 46751), (71, 46682), (72, 46667), (92, 46616), (98, 46580), (117, 46517), (120, 46484), (122, 46475), (127, 46427), (136, 46391), (139, 46376),

Gene: GordDuk1_57 Start: 47378, Stop: 46788, Start Num: 38
Candidate Starts for GordDuk1_57:
(38, 47378), (42, 47357), (54, 47315), (71, 47246), (72, 47231), (92, 47180), (98, 47144), (117, 47081), (120, 47048), (122, 47039), (127, 46991), (136, 46955), (139, 46940),

Gene: GordTnk2_58 Start: 47532, Stop: 46942, Start Num: 38
Candidate Starts for GordTnk2_58:
(38, 47532), (42, 47511), (54, 47469), (71, 47400), (72, 47385), (92, 47334), (98, 47298), (117, 47235), (120, 47202), (122, 47193), (127, 47145), (136, 47109), (139, 47094),

Gene: Gorko_55 Start: 49189, Stop: 48563, Start Num: 48
Candidate Starts for Gorko_55:
(8, 49648), (16, 49549), (19, 49459), (25, 49411), (Start: 48 @49189 has 79 MA's), (69, 49111), (70, 49108), (71, 49105), (91, 49000), (92, 48991), (100, 48949), (122, 48859), (123, 48844), (127, 48811), (135, 48778), (140, 48757), (168, 48646), (173, 48631),

Gene: GourdThymes_56 Start: 50063, Stop: 49437, Start Num: 48
Candidate Starts for GourdThymes_56:
(8, 50522), (16, 50423), (19, 50333), (25, 50285), (Start: 48 @50063 has 79 MA's), (69, 49985), (70, 49982), (71, 49979), (91, 49874), (92, 49865), (100, 49823), (122, 49733), (123, 49718), (127, 49685), (135, 49652), (140, 49631), (168, 49520), (173, 49505),

Gene: Guillaume_54 Start: 50453, Stop: 49827, Start Num: 48
Candidate Starts for Guillaume_54:
(5, 51167), (8, 50915), (11, 50846), (12, 50834), (14, 50828), (15, 50825), (23, 50702), (26, 50651), (Start: 48 @50453 has 79 MA's), (51, 50441), (69, 50375), (70, 50372), (71, 50369), (91, 50264), (92, 50255), (95, 50237), (127, 50075), (135, 50042), (136, 50039), (140, 50021), (172, 49901),

Gene: Hail2Pitt_53 Start: 50929, Stop: 50303, Start Num: 48
Candidate Starts for Hail2Pitt_53:
(2, 51850), (3, 51811), (4, 51736), (5, 51643), (8, 51391), (11, 51322), (12, 51310), (14, 51304), (15, 51301), (23, 51178), (26, 51127), (Start: 48 @50929 has 79 MA's), (51, 50917), (69, 50851), (70, 50848), (71, 50845), (91, 50740), (92, 50731), (95, 50713), (127, 50551), (135, 50518), (136, 50515), (140, 50497), (172, 50377),

Gene: Harambe_54 Start: 50720, Stop: 50094, Start Num: 48
Candidate Starts for Harambe_54:
(1, 51671), (2, 51641), (3, 51602), (4, 51527), (5, 51434), (8, 51182), (11, 51113), (12, 51101), (14, 51095), (15, 51092), (23, 50969), (26, 50918), (Start: 48 @50720 has 79 MA's), (51, 50708), (69, 50642), (70, 50639), (71, 50636), (91, 50531), (92, 50522), (95, 50504), (127, 50342), (135, 50309), (136, 50306), (140, 50288), (172, 50168),

Gene: HayZem_59 Start: 50367, Stop: 49747, Start Num: 46
Candidate Starts for HayZem_59:
(Start: 46 @50367 has 3 MA's), (64, 50301), (92, 50169), (104, 50112), (122, 50037), (125, 50001), (127, 49989), (140, 49935), (186, 49767),

Gene: Hello_54 Start: 50682, Stop: 50056, Start Num: 48
Candidate Starts for Hello_54:
(2, 51603), (3, 51564), (4, 51489), (5, 51396), (8, 51144), (11, 51075), (12, 51063), (14, 51057), (15, 51054), (23, 50931), (26, 50880), (Start: 48 @50682 has 79 MA's), (51, 50670), (69, 50604), (70, 50601), (71, 50598), (91, 50493), (92, 50484), (95, 50466), (127, 50304), (135, 50271), (136, 50268), (140, 50250), (172, 50130),

Gene: Hendrix_25 Start: 11316, Stop: 12032, Start Num: 48
Candidate Starts for Hendrix_25:

(21, 11058), (24, 11079), (Start: 48 @11316 has 79 MA's), (61, 11364), (71, 11406), (76, 11436), (89, 11505), (91, 11514), (92, 11523), (103, 11583), (107, 11595), (121, 11661), (124, 11700), (139, 11766), (160, 11832), (162, 11847), (178, 11913), (184, 11940), (192, 12021),

Gene: Hollow_52 Start: 50922, Stop: 50272, Start Num: 48
Candidate Starts for Hollow_52:
(Start: 48 @50922 has 79 MA's), (58, 50883), (74, 50823), (75, 50820), (76, 50814), (80, 50799), (82, 50784), (90, 50748), (92, 50736), (116, 50631), (122, 50598), (123, 50583), (127, 50550), (136, 50514), (140, 50496), (181, 50349),

Gene: Hotorobo_56 Start: 50068, Stop: 49442, Start Num: 48
Candidate Starts for Hotorobo_56:
(8, 50527), (16, 50428), (19, 50338), (25, 50290), (Start: 48 @50068 has 79 MA's), (69, 49990), (70, 49987), (71, 49984), (91, 49879), (92, 49870), (100, 49828), (122, 49738), (123, 49723), (127, 49690), (135, 49657), (140, 49636), (168, 49525), (173, 49510),

Gene: Jams_54 Start: 49892, Stop: 49266, Start Num: 48
Candidate Starts for Jams_54:
(5, 50606), (8, 50354), (11, 50285), (12, 50273), (14, 50267), (15, 50264), (23, 50141), (26, 50090), (Start: 48 @49892 has 79 MA's), (51, 49880), (69, 49814), (70, 49811), (71, 49808), (91, 49703), (92, 49694), (95, 49676), (127, 49514), (135, 49481), (136, 49478), (140, 49460), (172, 49340),

Gene: Jellybones_58 Start: 51163, Stop: 50537, Start Num: 48
Candidate Starts for Jellybones_58:
(8, 51622), (16, 51523), (25, 51385), (Start: 48 @51163 has 79 MA's), (69, 51085), (70, 51082), (71, 51079), (92, 50965), (100, 50923), (122, 50833), (127, 50785), (135, 50752), (140, 50731), (168, 50620), (173, 50605),

Gene: John316_59 Start: 51226, Stop: 50600, Start Num: 48
Candidate Starts for John316_59:
(8, 51685), (16, 51586), (19, 51496), (25, 51448), (Start: 48 @51226 has 79 MA's), (69, 51148), (70, 51145), (71, 51142), (91, 51037), (92, 51028), (100, 50986), (122, 50896), (123, 50881), (127, 50848), (135, 50815), (140, 50794), (168, 50683), (173, 50668),

Gene: Jormungandr_54 Start: 50435, Stop: 49809, Start Num: 48
Candidate Starts for Jormungandr_54:
(5, 51149), (8, 50897), (11, 50828), (12, 50816), (14, 50810), (15, 50807), (23, 50684), (26, 50633), (Start: 48 @50435 has 79 MA's), (51, 50423), (69, 50357), (70, 50354), (71, 50351), (91, 50246), (92, 50237), (95, 50219), (127, 50057), (135, 50024), (136, 50021), (140, 50003), (172, 49883),

Gene: Jumbo_55 Start: 51510, Stop: 50908, Start Num: 32
Candidate Starts for Jumbo_55:
(Start: 32 @51510 has 1 MA's), (Start: 36 @51495 has 1 MA's), (40, 51477), (54, 51429), (56, 51420), (59, 51408), (63, 51387), (70, 51363), (92, 51288), (106, 51228), (111, 51216), (127, 51099), (143, 51039),

Gene: Kampe_56 Start: 48715, Stop: 48053, Start Num: 37
Candidate Starts for Kampe_56:
(31, 48733), (Start: 37 @48715 has 6 MA's), (57, 48637), (70, 48583), (88, 48490), (91, 48475), (92, 48466), (126, 48283), (127, 48277), (147, 48199), (173, 48109), (185, 48067),

Gene: Kaseim_54 Start: 49877, Stop: 49251, Start Num: 48
Candidate Starts for Kaseim_54:

(5, 50591), (8, 50339), (11, 50270), (12, 50258), (14, 50252), (15, 50249), (23, 50126), (26, 50075), (Start: 48 @49877 has 79 MA's), (51, 49865), (69, 49799), (70, 49796), (71, 49793), (91, 49688), (92, 49679), (95, 49661), (127, 49499), (135, 49466), (136, 49463), (140, 49445), (172, 49325),

Gene: Katyusha_52 Start: 50741, Stop: 50091, Start Num: 48
Candidate Starts for Katyusha_52:
(Start: 48 @50741 has 79 MA's), (58, 50702), (74, 50642), (75, 50639), (76, 50633), (80, 50618), (82, 50603), (85, 50597), (90, 50567), (92, 50555), (122, 50417), (123, 50402), (127, 50369), (136, 50333), (140, 50315), (179, 50177), (181, 50168), (190, 50108), (191, 50105),

Gene: Kelzog_58 Start: 50075, Stop: 49449, Start Num: 48
Candidate Starts for Kelzog_58:
(8, 50534), (16, 50435), (19, 50345), (25, 50297), (Start: 48 @50075 has 79 MA's), (69, 49997), (70, 49994), (71, 49991), (91, 49886), (92, 49877), (100, 49835), (122, 49745), (123, 49730), (127, 49697), (135, 49664), (140, 49643), (168, 49532), (173, 49517),

Gene: Kvothe_51 Start: 50640, Stop: 49990, Start Num: 48
Candidate Starts for Kvothe_51:
(Start: 48 @50640 has 79 MA's), (58, 50601), (74, 50541), (75, 50538), (76, 50532), (80, 50517), (82, 50502), (90, 50466), (92, 50454), (121, 50322), (122, 50316), (123, 50301), (125, 50280), (127, 50268), (136, 50232), (140, 50214), (179, 50076), (181, 50067), (191, 50004),

Gene: Lahirium_54 Start: 50957, Stop: 50331, Start Num: 48
Candidate Starts for Lahirium_54:
(5, 51671), (8, 51419), (11, 51350), (12, 51338), (14, 51332), (15, 51329), (23, 51206), (26, 51155), (Start: 48 @50957 has 79 MA's), (51, 50945), (69, 50879), (70, 50876), (71, 50873), (91, 50768), (92, 50759), (95, 50741), (127, 50579), (135, 50546), (136, 50543), (140, 50525), (172, 50405),

Gene: Leaf_26 Start: 10810, Stop: 11490, Start Num: 48
Candidate Starts for Leaf_26:
(Start: 48 @10810 has 79 MA's), (67, 10882), (71, 10891), (78, 10933), (89, 10990), (91, 10999), (92, 11008), (115, 11095), (129, 11179), (130, 11182), (132, 11191), (139, 11224), (156, 11275), (162, 11305), (163, 11308), (184, 11398),

Gene: Lidong_54 Start: 50692, Stop: 50066, Start Num: 48
Candidate Starts for Lidong_54:
(5, 51406), (8, 51154), (11, 51085), (12, 51073), (14, 51067), (15, 51064), (23, 50941), (26, 50890), (Start: 48 @50692 has 79 MA's), (51, 50680), (69, 50614), (70, 50611), (71, 50608), (91, 50503), (92, 50494), (95, 50476), (127, 50314), (135, 50281), (136, 50278), (140, 50260), (172, 50140),

Gene: Linetti_56 Start: 50876, Stop: 50250, Start Num: 48
Candidate Starts for Linetti_56:
(8, 51335), (12, 51254), (17, 51227), (25, 51098), (Start: 48 @50876 has 79 MA's), (69, 50798), (70, 50795), (71, 50792), (85, 50723), (92, 50678), (100, 50636), (122, 50546), (127, 50498), (140, 50444), (168, 50333),

Gene: Lizzo_56 Start: 50057, Stop: 49431, Start Num: 48
Candidate Starts for Lizzo_56:
(8, 50516), (16, 50417), (19, 50327), (25, 50279), (Start: 48 @50057 has 79 MA's), (69, 49979), (70, 49976), (71, 49973), (91, 49868), (92, 49859), (100, 49817), (122, 49727), (123, 49712), (127, 49679), (135, 49646), (140, 49625), (168, 49514), (173, 49499),

Gene: Luker_55 Start: 50910, Stop: 50284, Start Num: 48

Candidate Starts for Luker_55:
(2, 51831), (3, 51792), (4, 51717), (5, 51624), (8, 51372), (11, 51303), (12, 51291), (14, 51285), (15, 51282), (23, 51159), (26, 51108), (Start: 48 @50910 has 79 MA's), (51, 50898), (69, 50832), (70, 50829), (71, 50826), (91, 50721), (92, 50712), (95, 50694), (127, 50532), (135, 50499), (136, 50496), (140, 50478), (172, 50358),

Gene: Magritte_79 Start: 66166, Stop: 66795, Start Num: 49
Candidate Starts for Magritte_79:
(28, 66079), (Start: 49 @66166 has 1 MA's), (84, 66298), (87, 66313), (92, 66334), (93, 66340), (101, 66382), (105, 66391), (107, 66397), (123, 66478), (145, 66571), (169, 66673), (174, 66685), (177, 66697),

Gene: Mbo2_49 Start: 40996, Stop: 40346, Start Num: 37
Candidate Starts for Mbo2_49:
(Start: 37 @40996 has 6 MA's), (40, 40975), (51, 40936), (78, 40816), (90, 40762), (91, 40759), (92, 40750), (112, 40675), (117, 40651), (122, 40609), (127, 40561), (128, 40555), (131, 40543), (144, 40498), (146, 40492), (149, 40477), (153, 40465), (158, 40453), (164, 40438), (182, 40360),

Gene: Minos_55 Start: 50434, Stop: 49808, Start Num: 48
Candidate Starts for Minos_55:
(2, 51355), (3, 51316), (4, 51241), (5, 51148), (8, 50896), (11, 50827), (12, 50815), (14, 50809), (15, 50806), (23, 50683), (26, 50632), (Start: 48 @50434 has 79 MA's), (51, 50422), (69, 50356), (70, 50353), (71, 50350), (91, 50245), (92, 50236), (95, 50218), (127, 50056), (135, 50023), (136, 50020), (140, 50002), (172, 49882),

Gene: Monty_55 Start: 49207, Stop: 48581, Start Num: 48
Candidate Starts for Monty_55:
(8, 49666), (16, 49567), (18, 49507), (19, 49477), (25, 49429), (Start: 48 @49207 has 79 MA's), (69, 49129), (70, 49126), (71, 49123), (91, 49018), (92, 49009), (100, 48967), (122, 48877), (123, 48862), (127, 48829), (135, 48796), (140, 48775), (168, 48664), (173, 48649),

Gene: MrWormie_54 Start: 49595, Stop: 48969, Start Num: 48
Candidate Starts for MrWormie_54:
(5, 50309), (8, 50057), (11, 49988), (12, 49976), (14, 49970), (15, 49967), (23, 49844), (26, 49793), (Start: 48 @49595 has 79 MA's), (51, 49583), (69, 49517), (70, 49514), (71, 49511), (91, 49406), (92, 49397), (95, 49379), (127, 49217), (135, 49184), (136, 49181), (140, 49163), (172, 49043),

Gene: Msay19_61 Start: 51777, Stop: 51151, Start Num: 48
Candidate Starts for Msay19_61:
(8, 52236), (16, 52137), (25, 51999), (Start: 48 @51777 has 79 MA's), (69, 51699), (70, 51696), (71, 51693), (83, 51627), (91, 51588), (92, 51579), (100, 51537), (122, 51447), (123, 51432), (127, 51399), (135, 51366), (140, 51345), (168, 51234), (173, 51219), (176, 51207),

Gene: Neoevie_54 Start: 50696, Stop: 50070, Start Num: 48
Candidate Starts for Neoevie_54:
(1, 51647), (2, 51617), (3, 51578), (4, 51503), (5, 51410), (8, 51158), (11, 51089), (12, 51077), (14, 51071), (15, 51068), (20, 50960), (26, 50894), (Start: 48 @50696 has 79 MA's), (51, 50684), (69, 50618), (70, 50615), (71, 50612), (91, 50507), (92, 50498), (95, 50480), (127, 50318), (135, 50285), (136, 50282), (140, 50264), (172, 50144),

Gene: Newt_55 Start: 50924, Stop: 50298, Start Num: 48
Candidate Starts for Newt_55:

(2, 51845), (3, 51806), (4, 51731), (5, 51638), (8, 51386), (11, 51317), (12, 51305), (14, 51299), (15, 51296), (20, 51188), (26, 51122), (Start: 48 @50924 has 79 MA's), (51, 50912), (69, 50846), (70, 50843), (71, 50840), (91, 50735), (92, 50726), (95, 50708), (127, 50546), (135, 50513), (136, 50510), (140, 50492), (172, 50372),

Gene: Niagara_52 Start: 50731, Stop: 50081, Start Num: 48
Candidate Starts for Niagara_52:
(Start: 48 @50731 has 79 MA's), (74, 50632), (75, 50629), (76, 50623), (82, 50593), (90, 50557), (92, 50545), (116, 50440), (122, 50407), (127, 50359), (136, 50323), (140, 50305), (181, 50158), (191, 50095),

Gene: Nimi13_54 Start: 50443, Stop: 49817, Start Num: 48
Candidate Starts for Nimi13_54:
(5, 51157), (8, 50905), (11, 50836), (12, 50824), (14, 50818), (15, 50815), (23, 50692), (26, 50641), (Start: 48 @50443 has 79 MA's), (51, 50431), (69, 50365), (70, 50362), (71, 50359), (91, 50254), (92, 50245), (95, 50227), (127, 50065), (135, 50032), (136, 50029), (140, 50011), (172, 49891),

Gene: Orchid_55 Start: 48716, Stop: 48054, Start Num: 37
Candidate Starts for Orchid_55:
(31, 48734), (Start: 37 @48716 has 6 MA's), (57, 48638), (70, 48584), (88, 48491), (91, 48476), (92, 48467), (126, 48284), (127, 48278), (147, 48200), (173, 48110), (185, 48068),

Gene: PatrickStar_56 Start: 48715, Stop: 48053, Start Num: 37
Candidate Starts for PatrickStar_56:
(31, 48733), (Start: 37 @48715 has 6 MA's), (57, 48637), (70, 48583), (88, 48490), (91, 48475), (92, 48466), (126, 48283), (127, 48277), (147, 48199), (173, 48109), (185, 48067),

Gene: Philon9_53 Start: 51588, Stop: 50944, Start Num: 48
Candidate Starts for Philon9_53:
(Start: 48 @51588 has 79 MA's), (76, 51480), (86, 51438), (88, 51426), (92, 51402), (121, 51270), (122, 51264), (123, 51249), (125, 51228), (127, 51216), (136, 51180), (140, 51162), (165, 51078), (172, 51054), (189, 50970), (190, 50955),

Gene: PierreThree_55 Start: 50522, Stop: 49896, Start Num: 48
Candidate Starts for PierreThree_55:
(8, 50981), (12, 50900), (17, 50873), (25, 50744), (Start: 48 @50522 has 79 MA's), (69, 50444), (70, 50441), (71, 50438), (85, 50369), (86, 50360), (92, 50324), (96, 50294), (100, 50282), (122, 50192), (127, 50144), (140, 50090), (168, 49979),

Gene: PokyPuppy_55 Start: 50516, Stop: 49890, Start Num: 48
Candidate Starts for PokyPuppy_55:
(3, 51380), (8, 50978), (17, 50867), (18, 50816), (25, 50738), (Start: 48 @50516 has 79 MA's), (69, 50438), (70, 50435), (71, 50432), (73, 50414), (77, 50399), (85, 50363), (91, 50327), (92, 50318), (100, 50276), (122, 50186), (123, 50171), (127, 50138), (135, 50105), (140, 50084), (161, 50018), (168, 49973), (173, 49958), (179, 49934),

Gene: Poland_61 Start: 51756, Stop: 51130, Start Num: 48
Candidate Starts for Poland_61:
(8, 52215), (16, 52116), (25, 51978), (Start: 48 @51756 has 79 MA's), (69, 51678), (70, 51675), (71, 51672), (83, 51606), (91, 51567), (92, 51558), (100, 51516), (122, 51426), (123, 51411), (127, 51378), (135, 51345), (140, 51324), (168, 51213), (173, 51198), (176, 51186),

Gene: Rasputia_25 Start: 10886, Stop: 11599, Start Num: 48

Candidate Starts for Rasputia_25:
(6, 10286), (9, 10463), (10, 10511), (24, 10667), (27, 10712), (Start: 48 @10886 has 79 MA's), (63, 10946), (71, 10973), (89, 11072), (91, 11081), (92, 11090), (102, 11147), (103, 11150), (118, 11207), (121, 11228), (139, 11333), (154, 11378), (160, 11399), (162, 11414), (178, 11480), (184, 11507), (192, 11588),

Gene: RemRem_57 Start: 49197, Stop: 48571, Start Num: 48
Candidate Starts for RemRem_57:
(8, 49656), (16, 49557), (19, 49467), (25, 49419), (Start: 48 @49197 has 79 MA's), (69, 49119), (70, 49116), (71, 49113), (91, 49008), (92, 48999), (100, 48957), (122, 48867), (123, 48852), (127, 48819), (135, 48786), (140, 48765), (168, 48654), (173, 48639),

Gene: Reynauld_53 Start: 48643, Stop: 47975, Start Num: 33
Candidate Starts for Reynauld_53:
(Start: 33 @48643 has 1 MA's), (Start: 37 @48634 has 6 MA's), (53, 48568), (59, 48544), (69, 48502), (78, 48454), (91, 48388), (92, 48379), (99, 48340), (108, 48313), (121, 48244), (122, 48238), (127, 48190), (137, 48148), (144, 48127), (157, 48085), (171, 48034),

Gene: RobinSparkles_59 Start: 49268, Stop: 48606, Start Num: 37
Candidate Starts for RobinSparkles_59:
(31, 49286), (Start: 37 @49268 has 6 MA's), (57, 49190), (70, 49136), (88, 49043), (91, 49028), (92, 49019), (126, 48836), (127, 48830), (147, 48752), (173, 48662), (185, 48620),

Gene: RoyalG_56 Start: 49972, Stop: 49346, Start Num: 48
Candidate Starts for RoyalG_56:
(8, 50431), (19, 50242), (Start: 48 @49972 has 79 MA's), (69, 49894), (70, 49891), (71, 49888), (92, 49774), (100, 49732), (122, 49642), (127, 49594), (135, 49561), (140, 49540), (168, 49429), (173, 49414), (176, 49402),

Gene: Sam12_55 Start: 49197, Stop: 48571, Start Num: 48
Candidate Starts for Sam12_55:
(8, 49656), (16, 49557), (19, 49467), (25, 49419), (Start: 48 @49197 has 79 MA's), (69, 49119), (70, 49116), (71, 49113), (91, 49008), (92, 48999), (95, 48981), (100, 48957), (122, 48867), (123, 48852), (127, 48819), (135, 48786), (140, 48765), (168, 48654), (173, 48639),

Gene: Shelley_54 Start: 49919, Stop: 49293, Start Num: 48
Candidate Starts for Shelley_54:
(5, 50633), (8, 50381), (11, 50312), (12, 50300), (14, 50294), (15, 50291), (23, 50168), (26, 50117), (Start: 48 @49919 has 79 MA's), (51, 49907), (69, 49841), (70, 49838), (71, 49835), (91, 49730), (92, 49721), (95, 49703), (127, 49541), (135, 49508), (136, 49505), (140, 49487), (172, 49367),

Gene: Sombrero_57 Start: 49764, Stop: 49138, Start Num: 48
Candidate Starts for Sombrero_57:
(8, 50223), (13, 50139), (18, 50064), (19, 50034), (22, 50022), (25, 49986), (Start: 48 @49764 has 79 MA's), (69, 49686), (70, 49683), (71, 49680), (92, 49566), (100, 49524), (122, 49434), (127, 49386), (135, 49353), (140, 49332), (168, 49221), (173, 49206), (176, 49194),

Gene: Squibbles_55 Start: 50060, Stop: 49434, Start Num: 48
Candidate Starts for Squibbles_55:
(8, 50519), (16, 50420), (19, 50330), (25, 50282), (Start: 48 @50060 has 79 MA's), (69, 49982), (70, 49979), (71, 49976), (91, 49871), (92, 49862), (100, 49820), (122, 49730), (123, 49715), (127, 49682), (135, 49649), (140, 49628), (168, 49517), (173, 49502),

Gene: Srilaccoli3_52 Start: 47866, Stop: 47207, Start Num: 37
Candidate Starts for Srilaccoli3_52:
(Start: 37 @47866 has 6 MA's), (40, 47845), (53, 47800), (59, 47776), (69, 47734), (78, 47686), (91, 47620), (92, 47611), (99, 47572), (108, 47545), (122, 47470), (123, 47455), (127, 47422), (131, 47404), (157, 47317),

Gene: SteveFrench_55 Start: 50212, Stop: 49586, Start Num: 48
Candidate Starts for SteveFrench_55:
(8, 50671), (19, 50482), (Start: 48 @50212 has 79 MA's), (69, 50134), (70, 50131), (71, 50128), (92, 50014), (100, 49972), (122, 49882), (127, 49834), (135, 49801), (140, 49780), (168, 49669), (173, 49654), (176, 49642),

Gene: Sticker17_54 Start: 50434, Stop: 49808, Start Num: 48
Candidate Starts for Sticker17_54:
(1, 51385), (2, 51355), (3, 51316), (4, 51241), (5, 51148), (8, 50896), (11, 50827), (12, 50815), (14, 50809), (15, 50806), (23, 50683), (26, 50632), (Start: 48 @50434 has 79 MA's), (51, 50422), (69, 50356), (70, 50353), (71, 50350), (91, 50245), (92, 50236), (95, 50218), (127, 50056), (135, 50023), (136, 50020), (140, 50002), (172, 49882),

Gene: Teal_54 Start: 50901, Stop: 50275, Start Num: 48
Candidate Starts for Teal_54:
(2, 51822), (3, 51783), (4, 51708), (5, 51615), (8, 51363), (11, 51294), (12, 51282), (14, 51276), (15, 51273), (20, 51165), (26, 51099), (Start: 48 @50901 has 79 MA's), (51, 50889), (69, 50823), (70, 50820), (71, 50817), (91, 50712), (92, 50703), (95, 50685), (127, 50523), (135, 50490), (136, 50487), (140, 50469), (172, 50349),

Gene: Teatealatte_53 Start: 50643, Stop: 49993, Start Num: 48
Candidate Starts for Teatealatte_53:
(Start: 48 @50643 has 79 MA's), (74, 50544), (75, 50541), (76, 50535), (82, 50505), (90, 50469), (92, 50457), (116, 50352), (122, 50319), (127, 50271), (136, 50235), (140, 50217), (181, 50070), (191, 50007),

Gene: Teech_53 Start: 50444, Stop: 49794, Start Num: 48
Candidate Starts for Teech_53:
(Start: 48 @50444 has 79 MA's), (74, 50345), (75, 50342), (76, 50336), (82, 50306), (90, 50270), (92, 50258), (116, 50153), (122, 50120), (127, 50072), (136, 50036), (140, 50018), (181, 49871), (191, 49808),

Gene: Tredge_53 Start: 50643, Stop: 49993, Start Num: 48
Candidate Starts for Tredge_53:
(Start: 48 @50643 has 79 MA's), (74, 50544), (75, 50541), (76, 50535), (82, 50505), (90, 50469), (92, 50457), (116, 50352), (122, 50319), (127, 50271), (136, 50235), (140, 50217), (181, 50070), (191, 50007),

Gene: Trogglehumper_74 Start: 57897, Stop: 57250, Start Num: 34
Candidate Starts for Trogglehumper_74:
(Start: 34 @57897 has 1 MA's), (50, 57834), (67, 57765), (94, 57627), (113, 57552), (134, 57438),

Gene: Vitaenoii_53 Start: 51587, Stop: 50943, Start Num: 48
Candidate Starts for Vitaenoii_53:
(Start: 48 @51587 has 79 MA's), (76, 51479), (86, 51437), (88, 51425), (92, 51401), (121, 51269), (122, 51263), (123, 51248), (125, 51227), (127, 51215), (136, 51179), (140, 51161), (165, 51077), (172, 51053), (189, 50969), (190, 50954),

Gene: Woes_54 Start: 50952, Stop: 50326, Start Num: 48
Candidate Starts for Woes_54:
(1, 51903), (2, 51873), (3, 51834), (4, 51759), (5, 51666), (8, 51414), (11, 51345), (12, 51333), (14, 51327), (15, 51324), (23, 51201), (26, 51150), (Start: 48 @50952 has 79 MA's), (51, 50940), (69, 50874), (70, 50871), (71, 50868), (91, 50763), (92, 50754), (95, 50736), (127, 50574), (135, 50541), (136, 50538), (140, 50520), (172, 50400),

Gene: Worcestershire_55 Start: 49199, Stop: 48573, Start Num: 48
Candidate Starts for Worcestershire_55:
(8, 49658), (16, 49559), (19, 49469), (25, 49421), (Start: 48 @49199 has 79 MA's), (69, 49121), (70, 49118), (71, 49115), (91, 49010), (92, 49001), (100, 48959), (122, 48869), (123, 48854), (127, 48821), (135, 48788), (140, 48767), (168, 48656), (173, 48641),

Gene: Zooman_255 Start: 153487, Stop: 154092, Start Num: 41
Candidate Starts for Zooman_255:
(Start: 41 @153487 has 2 MA's), (52, 153520), (78, 153631), (79, 153634), (92, 153703), (110, 153763), (119, 153820), (126, 153874), (138, 153922), (170, 154042), (183, 154081),