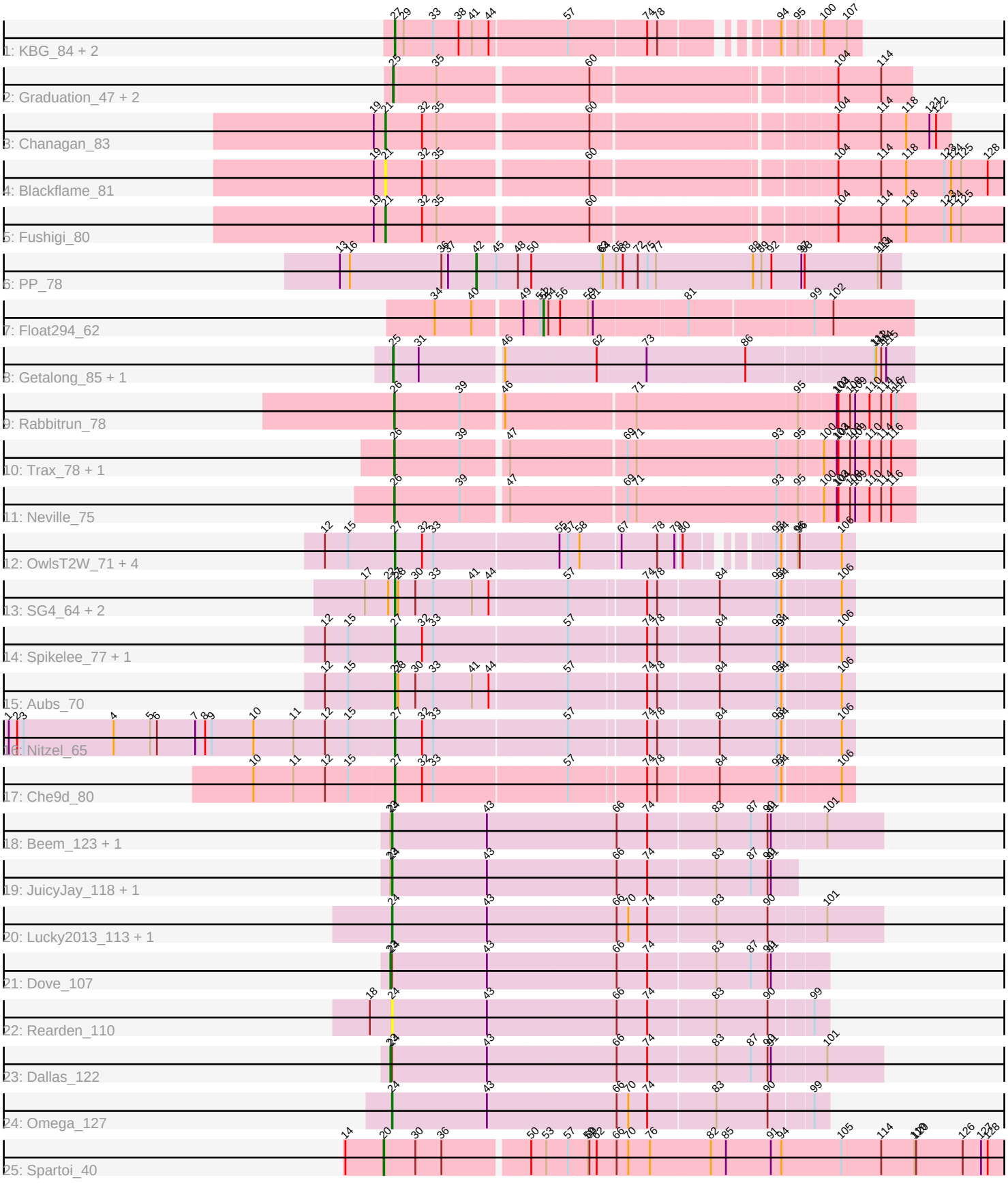
Pham 347796


1: KBG_84 + 2
2: Graduation_47 + 2
3: Chanagan_83
4: Blackflame_81
5: Fushigi_80
6: PP_78
7: Float294_62
8: Getalong_85 + 1
9: Rabbitrun_78
10: Trax_78 + 1
11: Neville_75
12: OwlsT2W_71 + 4
13: SG4_64 + 2
14: Spikelee_77 + 1
15: Aubs_70
16: Nitzel_65
17: Che9d_80
18: Beem_123 + 1
19: JuicyJay_118 + 1
20: Lucky2013_113 + 1
21: Dove_107
22: Rearden_110
23: Dallas_122
24: Omega_127
25: Spartoi_40

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 347796 Report

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

Pham number 347796 has 41 members, 3 are drafts.

Phages represented in each track:
• Track 1 : KBG_84, ChristmasHams_77, Rhynn_83
• Track 2 : Graduation_47, Papez_46, Magnar_43
• Track 3 : Chanagan_83
• Track 4 : Blackflame_81
• Track 5 : Fushigi_80
• Track 6 : PP_78
• Track 7 : Float294_62
• Track 8 : Getalong_85, Whitney_80
• Track 9 : Rabbitrun_78
• Track 10 : Trax_78, LilJank_80
• Track 11 : Neville_75
• Track 12 : OwlsT2W_71, Royals2015_75, Zerg_69, Rialto_76, Hades_69
• Track 13 : SG4_64, ShroomBoi_71, NewHope4_69
• Track 14 : Spikelee_77, Bubbles123_66
• Track 15 : Aubs_70
• Track 16 : Nitzel_65
• Track 17 : Che9d_80
• Track 18 : Beem_123, Phoebus_122
• Track 19 : JuicyJay_118, NihilNomen_123
• Track 20 : Lucky2013_113, Porcelain_116
• Track 21 : Dove_107
• Track 22 : Rearden_110
• Track 23 : Dallas_122
• Track 24 : Omega_127
• Track 25 : Spartoi_40

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

The start number called the most often in the published annotations is 27, it was called in 15 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aubs_70, Bubbles123_66, Che9d_80, ChristmasHams_77, Hades_69, KBG_84, NewHope4_69, Nitzel_65, OwlsT2W_71, Rhynn_83, Rialto_76, Royals2015_75,

SG4_64, ShroomBoi_71, Spikelee_77, Zerg_69,

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

Genes that do not have the "Most Annotated" start:
• Beem_123, Blackflame_81, Chanagan_83, Dallas_122, Dove_107, Float294_62, Fushigi_80, Getalong_85, Graduation_47, JuicyJay_118, LilJank_80, Lucky2013_113, Magnar_43, Neville_75, NihilNomen_123, Omega_127, PP_78, Papez_46, Phoebus_122, Porcelain_116, Rabbitrun_78, Rearden_110, Spartoi_40, Trax_78, Whitney_80,

Summary by start number:

Start 20:
• Found in 1 of 41 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Spartoi_40 (singleton),

Start 21:
• Found in 3 of 41 (7.3%) of genes in pham
• Manual Annotations of this start: 2 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Blackflame_81 (A1), Chanagan_83 (A1), Fushigi_80 (A1),

Start 23:
• Found in 6 of 41 (14.6%) of genes in pham
• Manual Annotations of this start: 2 of 38
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Dallas_122 (J), Dove_107 (J),

Start 24:
• Found in 10 of 41 (24.4%) of genes in pham
• Manual Annotations of this start: 7 of 38
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Beem_123 (J), JuicyJay_118 (J), Lucky2013_113 (J), NihilNomen_123 (J), Omega_127 (J), Phoebus_122 (J), Porcelain_116 (J), Rearden_110 (J),

Start 25:
• Found in 5 of 41 (12.2%) of genes in pham
• Manual Annotations of this start: 5 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Getalong_85 (DN1), Graduation_47 (A1), Magnar_43 (A1), Papez_46 (A1), Whitney_80 (DN1),

Start 26:
• Found in 4 of 41 (9.8%) of genes in pham
• Manual Annotations of this start: 4 of 38
• Called 100.0% of time when present

• Phage (with cluster) where this start called: LilJank_80 (DU2), Neville_75 (DU2), Rabbitrun_78 (DU2), Trax_78 (DU2),

Start 27:
• Found in 16 of 41 (39.0%) of genes in pham
• Manual Annotations of this start: 15 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aubs_70 (F1), Bubbles123_66 (F1), Che9d_80 (F2), ChristmasHams_77 (A1), Hades_69 (F1), KBG_84 (A1), NewHope4_69 (F1), Nitzel_65 (F1), OwlsT2W_71 (F1), Rhynn_83 (A1), Rialto_76 (F1), Royals2015_75 (F1), SG4_64 (F1), ShroomBoi_71 (F1), Spikelee_77 (F1), Zerg_69 (F1),

Start 42:
• Found in 1 of 41 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PP_78 (A7),

Start 52:
• Found in 1 of 41 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Float294_62 (CR3),

Summary by clusters:

There are 9 clusters represented in this pham: F1, singleton, CR3, J, F2, A1, DN1, A7, DU2,

Info for manual annotations of cluster A1:
•Start number 21 was manually annotated 2 times for cluster A1.
•Start number 25 was manually annotated 3 times for cluster A1.
•Start number 27 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster A7:
•Start number 42 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster CR3:
•Start number 52 was manually annotated 1 time for cluster CR3.

Info for manual annotations of cluster DN1:
•Start number 25 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DU2:
•Start number 26 was manually annotated 4 times for cluster DU2.

Info for manual annotations of cluster F1:
•Start number 27 was manually annotated 12 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 27 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster J:
•Start number 23 was manually annotated 2 times for cluster J.
•Start number 24 was manually annotated 7 times for cluster J.

Gene Information:

Gene: Aubs_70 Start: 45656, Stop: 46414, Start Num: 27
Candidate Starts for Aubs_70:
(12, 45533), (15, 45575), (Start: 27 @45656 has 15 MA's), (28, 45662), (30, 45692), (33, 45719), (41, 45788), (44, 45818), (57, 45947), (74, 46076), (78, 46094), (84, 46196), (93, 46289), (94, 46298), (106, 46391),

Gene: Beem_123 Start: 68477, Stop: 69316, Start Num: 24
Candidate Starts for Beem_123:
(Start: 23 @68474 has 2 MA's), (Start: 24 @68477 has 7 MA's), (43, 68642), (66, 68867), (74, 68921), (83, 69035), (87, 69095), (90, 69122), (91, 69128), (101, 69218),

Gene: Blackflame_81 Start: 49915, Stop: 48884, Start Num: 21
Candidate Starts for Blackflame_81:
(19, 49936), (Start: 21 @49915 has 2 MA's), (32, 49849), (35, 49825), (60, 49579), (104, 49195), (114, 49120), (118, 49075), (123, 49006), (124, 48994), (125, 48976), (128, 48928),

Gene: Bubbles123_66 Start: 44845, Stop: 45603, Start Num: 27
Candidate Starts for Bubbles123_66:
(12, 44722), (15, 44764), (Start: 27 @44845 has 15 MA's), (32, 44893), (33, 44908), (57, 45136), (74, 45265), (78, 45283), (84, 45385), (93, 45478), (94, 45487), (106, 45580),

Gene: Chanagan_83 Start: 48048, Stop: 47131, Start Num: 21
Candidate Starts for Chanagan_83:
(19, 48069), (Start: 21 @48048 has 2 MA's), (32, 47982), (35, 47958), (60, 47712), (104, 47328), (114, 47253), (118, 47208), (121, 47169), (122, 47157),

Gene: Che9d_80 Start: 45002, Stop: 45760, Start Num: 27
Candidate Starts for Che9d_80:
(10, 44750), (11, 44822), (12, 44879), (15, 44921), (Start: 27 @45002 has 15 MA's), (32, 45050), (33, 45065), (57, 45293), (74, 45422), (78, 45440), (84, 45542), (93, 45635), (94, 45644), (106, 45737),

Gene: ChristmasHams_77 Start: 46675, Stop: 45962, Start Num: 27
Candidate Starts for ChristmasHams_77:
(Start: 27 @46675 has 15 MA's), (29, 46660), (33, 46612), (38, 46567), (41, 46543), (44, 46513), (57, 46387), (74, 46252), (78, 46234), (94, 46084), (95, 46060), (100, 46027), (107, 45988),

Gene: Dallas_122 Start: 67989, Stop: 68831, Start Num: 23
Candidate Starts for Dallas_122:
(Start: 23 @67989 has 2 MA's), (Start: 24 @67992 has 7 MA's), (43, 68157), (66, 68382), (74, 68436), (83, 68550), (87, 68610), (90, 68637), (91, 68643), (101, 68733),

Gene: Dove_107 Start: 62903, Stop: 63649, Start Num: 23
Candidate Starts for Dove_107:
(Start: 23 @62903 has 2 MA's), (Start: 24 @62906 has 7 MA's), (43, 63071), (66, 63296), (74, 63350), (83, 63464), (87, 63524), (90, 63551), (91, 63557),

Gene: Float294_62 Start: 50332, Stop: 49703, Start Num: 52
Candidate Starts for Float294_62:
(34, 50515), (40, 50449), (49, 50365), (51, 50338), (Start: 52 @50332 has 1 MA's), (54, 50323), (56, 50305), (59, 50257), (61, 50248), (81, 50092), (99, 49876), (102, 49846),

Gene: Fushigi_80 Start: 47333, Stop: 46284, Start Num: 21
Candidate Starts for Fushigi_80:
(19, 47354), (Start: 21 @47333 has 2 MA's), (32, 47267), (35, 47243), (60, 46997), (104, 46613), (114, 46538), (118, 46493), (123, 46424), (124, 46412), (125, 46394),

Gene: Getalong_85 Start: 48170, Stop: 49033, Start Num: 25
Candidate Starts for Getalong_85:
(Start: 25 @48170 has 5 MA's), (31, 48212), (46, 48347), (62, 48500), (73, 48584), (86, 48749), (111, 48965), (112, 48968), (114, 48977), (115, 48986),

Gene: Graduation_47 Start: 34493, Stop: 33666, Start Num: 25
Candidate Starts for Graduation_47:
(Start: 25 @34493 has 5 MA's), (35, 34421), (60, 34175), (104, 33791), (114, 33716),

Gene: Hades_69 Start: 43298, Stop: 44011, Start Num: 27
Candidate Starts for Hades_69:
(12, 43175), (15, 43217), (Start: 27 @43298 has 15 MA's), (32, 43346), (33, 43361), (55, 43574), (57, 43586), (58, 43607), (67, 43676), (78, 43739), (79, 43766), (80, 43775), (93, 43886), (94, 43895), (95, 43919), (96, 43922), (106, 43988),

Gene: JuicyJay_118 Start: 69612, Stop: 70307, Start Num: 24
Candidate Starts for JuicyJay_118:
(Start: 23 @69609 has 2 MA's), (Start: 24 @69612 has 7 MA's), (43, 69777), (66, 70002), (74, 70056), (83, 70170), (87, 70230), (90, 70257), (91, 70263),

Gene: KBG_84 Start: 51007, Stop: 50294, Start Num: 27
Candidate Starts for KBG_84:
(Start: 27 @51007 has 15 MA's), (29, 50992), (33, 50944), (38, 50899), (41, 50875), (44, 50845), (57, 50719), (74, 50584), (78, 50566), (94, 50416), (95, 50392), (100, 50359), (107, 50320),

Gene: LilJank_80 Start: 48712, Stop: 49575, Start Num: 26
Candidate Starts for LilJank_80:
(Start: 26 @48712 has 4 MA's), (39, 48826), (47, 48898), (69, 49087), (71, 49102), (93, 49342), (95, 49378), (100, 49417), (103, 49438), (104, 49441), (108, 49462), (109, 49471), (110, 49495), (114, 49516), (116, 49534),

Gene: Lucky2013_113 Start: 62899, Stop: 63738, Start Num: 24
Candidate Starts for Lucky2013_113:
(Start: 24 @62899 has 7 MA's), (43, 63064), (66, 63289), (70, 63310), (74, 63343), (83, 63457), (90, 63544), (101, 63640),

Gene: Magnar_43 Start: 33305, Stop: 32478, Start Num: 25
Candidate Starts for Magnar_43:
(Start: 25 @33305 has 5 MA's), (35, 33233), (60, 32987), (104, 32603), (114, 32528),

Gene: Neville_75 Start: 47371, Stop: 48234, Start Num: 26
Candidate Starts for Neville_75:

(Start: 26 @47371 has 4 MA's), (39, 47485), (47, 47557), (69, 47746), (71, 47761), (93, 48001), (95, 48037), (100, 48076), (103, 48097), (104, 48100), (108, 48121), (109, 48130), (110, 48154), (114, 48175), (116, 48193),

Gene: NewHope4_69 Start: 43073, Stop: 43831, Start Num: 27
Candidate Starts for NewHope4_69:
(17, 43019), (22, 43061), (Start: 27 @43073 has 15 MA's), (28, 43079), (30, 43109), (33, 43136), (41, 43205), (44, 43235), (57, 43364), (74, 43493), (78, 43511), (84, 43613), (93, 43706), (94, 43715), (106, 43808),

Gene: NihilNomen_123 Start: 67564, Stop: 68259, Start Num: 24
Candidate Starts for NihilNomen_123:
(Start: 23 @67561 has 2 MA's), (Start: 24 @67564 has 7 MA's), (43, 67729), (66, 67954), (74, 68008), (83, 68122), (87, 68182), (90, 68209), (91, 68215),

Gene: Nitzel_65 Start: 42237, Stop: 42995, Start Num: 27
Candidate Starts for Nitzel_65:
(1, 41544), (2, 41559), (3, 41571), (4, 41733), (5, 41799), (6, 41811), (7, 41880), (8, 41898), (9, 41910), (10, 41985), (11, 42057), (12, 42114), (15, 42156), (Start: 27 @42237 has 15 MA's), (32, 42285), (33, 42300), (57, 42528), (74, 42657), (78, 42675), (84, 42777), (93, 42870), (94, 42879), (106, 42972),

Gene: Omega_127 Start: 67900, Stop: 68643, Start Num: 24
Candidate Starts for Omega_127:
(Start: 24 @67900 has 7 MA's), (43, 68065), (66, 68290), (70, 68311), (74, 68344), (83, 68458), (90, 68545), (99, 68620),

Gene: OwlsT2W_71 Start: 45043, Stop: 45756, Start Num: 27
Candidate Starts for OwlsT2W_71:
(12, 44920), (15, 44962), (Start: 27 @45043 has 15 MA's), (32, 45091), (33, 45106), (55, 45319), (57, 45331), (58, 45352), (67, 45421), (78, 45484), (79, 45511), (80, 45520), (93, 45631), (94, 45640), (95, 45664), (96, 45667), (106, 45733),

Gene: PP_78 Start: 50822, Stop: 50058, Start Num: 42
Candidate Starts for PP_78:
(13, 51065), (16, 51047), (36, 50882), (37, 50870), (Start: 42 @50822 has 1 MA's), (45, 50786), (48, 50747), (50, 50723), (63, 50597), (64, 50594), (65, 50570), (68, 50558), (72, 50531), (75, 50513), (77, 50498), (88, 50324), (89, 50309), (92, 50291), (97, 50237), (98, 50231), (113, 50099), (114, 50093),

Gene: Papez_46 Start: 35129, Stop: 34302, Start Num: 25
Candidate Starts for Papez_46:
(Start: 25 @35129 has 5 MA's), (35, 35057), (60, 34811), (104, 34427), (114, 34352),

Gene: Phoebus_122 Start: 69422, Stop: 70261, Start Num: 24
Candidate Starts for Phoebus_122:
(Start: 23 @69419 has 2 MA's), (Start: 24 @69422 has 7 MA's), (43, 69587), (66, 69812), (74, 69866), (83, 69980), (87, 70040), (90, 70067), (91, 70073), (101, 70163),

Gene: Porcelain_116 Start: 63845, Stop: 64684, Start Num: 24
Candidate Starts for Porcelain_116:
(Start: 24 @63845 has 7 MA's), (43, 64010), (66, 64235), (70, 64256), (74, 64289), (83, 64403), (90, 64490), (101, 64586),

Gene: Rabbitrun_78 Start: 47636, Stop: 48499, Start Num: 26

Candidate Starts for Rabbitrun_78:
(Start: 26 @47636 has 4 MA's), (39, 47750), (46, 47813), (71, 48026), (95, 48302), (103, 48362), (104, 48365), (108, 48386), (109, 48395), (110, 48419), (114, 48440), (116, 48458), (117, 48467),

Gene: Rearden_110 Start: 63557, Stop: 64300, Start Num: 24
Candidate Starts for Rearden_110:
(18, 63518), (Start: 24 @63557 has 7 MA's), (43, 63722), (66, 63947), (74, 64001), (83, 64115), (90, 64202), (99, 64277),

Gene: Rhynn_83 Start: 50333, Stop: 49620, Start Num: 27
Candidate Starts for Rhynn_83:
(Start: 27 @50333 has 15 MA's), (29, 50318), (33, 50270), (38, 50225), (41, 50201), (44, 50171), (57, 50045), (74, 49910), (78, 49892), (94, 49742), (95, 49718), (100, 49685), (107, 49646),

Gene: Rialto_76 Start: 46410, Stop: 47123, Start Num: 27
Candidate Starts for Rialto_76:
(12, 46287), (15, 46329), (Start: 27 @46410 has 15 MA's), (32, 46458), (33, 46473), (55, 46686), (57, 46698), (58, 46719), (67, 46788), (78, 46851), (79, 46878), (80, 46887), (93, 46998), (94, 47007), (95, 47031), (96, 47034), (106, 47100),

Gene: Royals2015_75 Start: 45063, Stop: 45776, Start Num: 27
Candidate Starts for Royals2015_75:
(12, 44940), (15, 44982), (Start: 27 @45063 has 15 MA's), (32, 45111), (33, 45126), (55, 45339), (57, 45351), (58, 45372), (67, 45441), (78, 45504), (79, 45531), (80, 45540), (93, 45651), (94, 45660), (95, 45684), (96, 45687), (106, 45753),

Gene: SG4_64 Start: 41908, Stop: 42666, Start Num: 27
Candidate Starts for SG4_64:
(17, 41854), (22, 41896), (Start: 27 @41908 has 15 MA's), (28, 41914), (30, 41944), (33, 41971), (41, 42040), (44, 42070), (57, 42199), (74, 42328), (78, 42346), (84, 42448), (93, 42541), (94, 42550), (106, 42643),

Gene: ShroomBoi_71 Start: 45417, Stop: 46175, Start Num: 27
Candidate Starts for ShroomBoi_71:
(17, 45363), (22, 45405), (Start: 27 @45417 has 15 MA's), (28, 45423), (30, 45453), (33, 45480), (41, 45549), (44, 45579), (57, 45708), (74, 45837), (78, 45855), (84, 45957), (93, 46050), (94, 46059), (106, 46152),

Gene: Spartoi_40 Start: 27031, Stop: 28128, Start Num: 20
Candidate Starts for Spartoi_40:
(14, 26962), (Start: 20 @27031 has 1 MA's), (30, 27088), (36, 27133), (50, 27274), (53, 27301), (57, 27337), (59, 27373), (60, 27376), (62, 27388), (66, 27424), (70, 27445), (76, 27484), (82, 27592), (85, 27619), (91, 27700), (94, 27718), (105, 27823), (114, 27895), (119, 27955), (120, 27958), (126, 28042), (127, 28075), (128, 28087),

Gene: Spikelee_77 Start: 47075, Stop: 47833, Start Num: 27
Candidate Starts for Spikelee_77:
(12, 46952), (15, 46994), (Start: 27 @47075 has 15 MA's), (32, 47123), (33, 47138), (57, 47366), (74, 47495), (78, 47513), (84, 47615), (93, 47708), (94, 47717), (106, 47810),

Gene: Trax_78 Start: 48336, Stop: 49199, Start Num: 26
Candidate Starts for Trax_78:

(Start: 26 @48336 has 4 MA's), (39, 48450), (47, 48522), (69, 48711), (71, 48726), (93, 48966), (95, 49002), (100, 49041), (103, 49062), (104, 49065), (108, 49086), (109, 49095), (110, 49119), (114, 49140), (116, 49158),

Gene: Whitney_80 Start: 47491, Stop: 48354, Start Num: 25
Candidate Starts for Whitney_80:
(Start: 25 @47491 has 5 MA's), (31, 47533), (46, 47668), (62, 47821), (73, 47905), (86, 48070), (111, 48286), (112, 48289), (114, 48298), (115, 48307),

Gene: Zerg_69 Start: 44914, Stop: 45627, Start Num: 27
Candidate Starts for Zerg_69:
(12, 44791), (15, 44833), (Start: 27 @44914 has 15 MA's), (32, 44962), (33, 44977), (55, 45190), (57, 45202), (58, 45223), (67, 45292), (78, 45355), (79, 45382), (80, 45391), (93, 45502), (94, 45511), (95, 45535), (96, 45538), (106, 45604),