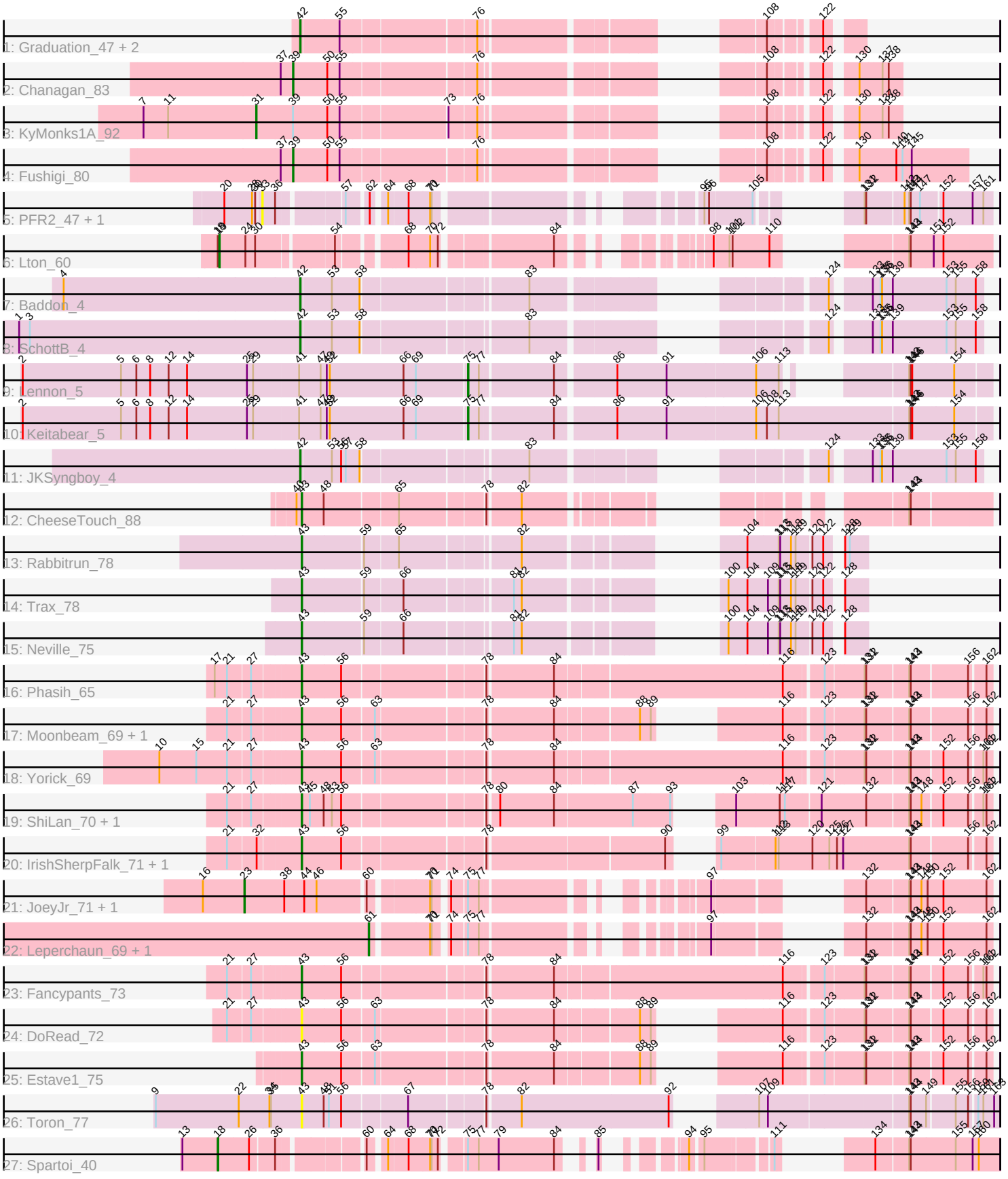
Pham 216380


1: Graduation_47 + 2
2: Chanagan_83
3: KyMonks1A_92
4: Fushigi_80
5: PFR2_47 + 1
6: Lton_60
7: Baddon_4
8: SchottB_4
9: Lennon_5
10: Keitabear_5
11: JKSyngboy_4
12: CheeseTouch_88
13: Rabbitrun_78
14: Trax_78
15: Neville_75
16: Phasih_65
17: Moonbeam_69 + 1
18: Yorick_69
19: ShiLan_70 + 1
20: IrishSherpFalk_71 + 1
21: JoeyJr_71 + 1
22: Leperchaun_69 + 1
23: Fancypants_73
24: DoRead_72
25: Estave1_75
26: Toron_77
27: 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 216380 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216380 has 35 members, 4 are drafts.

Phages represented in each track:
- Track 1 : Graduation_47, Papez_46, Magnar_43
- Track 2 : Chanagan_83
- Track 3 : KyMonks1A_92
- Track 4 : Fushigi_80
- Track 5 : PFR2_47, PFR1_45
- Track 6 : Lton_60
- Track 7 : Baddon_4
- Track 8 : SchottB_4
- Track 9 : Lennon_5
- Track 10 : Keitabear_5
- Track 11 : JKSyngboy_4
- Track 12 : CheeseTouch_88
- Track 13 : Rabbitrun_78
- Track 14 : Trax_78
- Track 15 : Neville_75
- Track 16 : Phasih_65
- Track 17 : Moonbeam_69, Starcevich_69
- Track 18 : Yorick_69
- Track 19 : ShiLan_70, Rita_76
- Track 20 : IrishSherpFalk_71, WillSterrel_71
- Track 21 : JoeyJr_71, RitaG_71
- Track 22 : Leperchaun_69, Polka14_75
- Track 23 : Fancypants_73
- Track 24 : DoRead_72
- Track 25 : Estave1_75
- Track 26 : Toron_77
- Track 27 : 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 43, it was called in 14 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• CheeseTouch_88, DoRead_72, Estave1_75, Fancypants_73, IrishSherpFalk_71, Moonbeam_69, Neville_75, Phasih_65, Rabbitrun_78, Rita_76, ShiLan_70, Starcevich_69, Toron_77, Trax_78, WillSterrel_71, Yorick_69,

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

Genes that do not have the "Most Annotated" start:
• Baddon_4, Chanagan_83, Fushigi_80, Graduation_47, JKSyngboy_4, JoeyJr_71, Keitabear_5, KyMonks1A_92, Lennon_5, Leperchaun_69, Lton_60, Magnar_43, PFR1_45, PFR2_47, Papez_46, Polka14_75, RitaG_71, SchottB_4, Spartoi_40,

Summary by start number:

Start 18:
• Found in 2 of 35 (5.7%) of genes in pham
• Manual Annotations of this start: 1 of 31
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Spartoi_40 (singleton),

Start 19:
• Found in 1 of 35 (2.9%) of genes in pham
• Manual Annotations of this start: 1 of 31
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lton_60 (CZ),

Start 23:
• Found in 2 of 35 (5.7%) of genes in pham
• Manual Annotations of this start: 2 of 31
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JoeyJr_71 (F1), RitaG_71 (F1),

Start 31:
• Found in 1 of 35 (2.9%) of genes in pham
• Manual Annotations of this start: 1 of 31
• Called 100.0% of time when present
• Phage (with cluster) where this start called: KyMonks1A_92 (A1),

Start 33:
• Found in 2 of 35 (5.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PFR1_45 (BX), PFR2_47 (BX),

Start 39:
• Found in 3 of 35 (8.6%) of genes in pham
• Manual Annotations of this start: 2 of 31
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Chanagan_83 (A1), Fushigi_80 (A1),

Start 42:
• Found in 6 of 35 (17.1%) of genes in pham
• Manual Annotations of this start: 6 of 31

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Baddon_4 (DE1), Graduation_47 (A1), JKSyngboy_4 (DE1), Magnar_43 (A1), Papez_46 (A1), SchottB_4 (DE1),

Start 43:
• Found in 16 of 35 (45.7%) of genes in pham
• Manual Annotations of this start: 14 of 31
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CheeseTouch_88 (DN1), DoRead_72 (F1), Estave1_75 (F1), Fancypants_73 (F1), IrishSherpFalk_71 (F1), Moonbeam_69 (F1), Neville_75 (DU2), Phasih_65 (F1), Rabbitrun_78 (DU2), Rita_76 (F1), ShiLan_70 (F1), Starcevich_69 (F1), Toron_77 (F6), Trax_78 (DU2), WillSterrel_71 (F1), Yorick_69 (F1),

Start 61:
• Found in 2 of 35 (5.7%) of genes in pham
• Manual Annotations of this start: 2 of 31
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Leperchaun_69 (F1), Polka14_75 (F1),

Start 75:
• Found in 7 of 35 (20.0%) of genes in pham
• Manual Annotations of this start: 2 of 31
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Keitabear_5 (DE1), Lennon_5 (DE1),

Summary by clusters:

There are 9 clusters represented in this pham: F1, singleton, F6, DE1, A1, CZ, DN1, DU2, BX,

Info for manual annotations of cluster A1:
•Start number 31 was manually annotated 1 time for cluster A1.
•Start number 39 was manually annotated 2 times for cluster A1.
•Start number 42 was manually annotated 3 times for cluster A1.

Info for manual annotations of cluster CZ:
•Start number 19 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster DE1:
•Start number 42 was manually annotated 3 times for cluster DE1.
•Start number 75 was manually annotated 2 times for cluster DE1.

Info for manual annotations of cluster DN1:
•Start number 43 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DU2:
•Start number 43 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster F1:
•Start number 23 was manually annotated 2 times for cluster F1.
•Start number 43 was manually annotated 10 times for cluster F1.

•Start number 61 was manually annotated 2 times for cluster F1.

Gene Information:

Gene: Baddon_4 Start: 2579, Stop: 3649, Start Num: 42
Candidate Starts for Baddon_4:
(4, 2123), (Start: 42 @2579 has 6 MA's), (53, 2636), (58, 2690), (83, 2984), (124, 3377), (133, 3437), (135, 3452), (136, 3455), (139, 3476), (153, 3581), (155, 3599), (158, 3635),

Gene: Chanagan_83 Start: 48048, Stop: 47131, Start Num: 39
Candidate Starts for Chanagan_83:
(37, 48069), (Start: 39 @48048 has 2 MA's), (50, 47982), (55, 47958), (76, 47712), (108, 47328), (122, 47253), (130, 47208), (137, 47169), (138, 47157),

Gene: CheeseTouch_88 Start: 43473, Stop: 44507, Start Num: 43
Candidate Starts for CheeseTouch_88:
(40, 43464), (Start: 43 @43473 has 14 MA's), (48, 43515), (65, 43650), (78, 43803), (82, 43863), (143, 44355), (144, 44358),

Gene: DoRead_72 Start: 43076, Stop: 44179, Start Num: 43
Candidate Starts for DoRead_72:
(21, 42953), (27, 42995), (Start: 43 @43076 has 14 MA's), (56, 43151), (63, 43211), (78, 43406), (84, 43529), (88, 43673), (89, 43694), (116, 43823), (123, 43889), (131, 43955), (132, 43958), (143, 44036), (144, 44039), (152, 44096), (156, 44144), (162, 44168),

Gene: Estave1_75 Start: 47847, Stop: 48950, Start Num: 43
Candidate Starts for Estave1_75:
(Start: 43 @47847 has 14 MA's), (56, 47922), (63, 47982), (78, 48177), (84, 48300), (88, 48444), (89, 48465), (116, 48594), (123, 48660), (131, 48726), (132, 48729), (143, 48807), (144, 48810), (152, 48867), (156, 48915), (162, 48939),

Gene: Fancypants_73 Start: 46022, Stop: 47248, Start Num: 43
Candidate Starts for Fancypants_73:
(21, 45899), (27, 45941), (Start: 43 @46022 has 14 MA's), (56, 46097), (78, 46352), (84, 46475), (116, 46892), (123, 46958), (131, 47024), (132, 47027), (143, 47105), (144, 47108), (152, 47165), (156, 47213), (161, 47231), (162, 47237),

Gene: Fushigi_80 Start: 47333, Stop: 46284, Start Num: 39
Candidate Starts for Fushigi_80:
(37, 47354), (Start: 39 @47333 has 2 MA's), (50, 47267), (55, 47243), (76, 46997), (108, 46613), (122, 46538), (130, 46493), (140, 46424), (141, 46412), (145, 46394),

Gene: Graduation_47 Start: 34493, Stop: 33666, Start Num: 42
Candidate Starts for Graduation_47:
(Start: 42 @34493 has 6 MA's), (55, 34421), (76, 34175), (108, 33791), (122, 33716),

Gene: IrishSherpFalk_71 Start: 45147, Stop: 46322, Start Num: 43
Candidate Starts for IrishSherpFalk_71:
(21, 45024), (32, 45072), (Start: 43 @45147 has 14 MA's), (56, 45222), (78, 45477), (90, 45804), (99, 45828), (112, 45924), (113, 45930), (120, 45993), (125, 46026), (126, 46041), (127, 46053), (143,

46179), (144, 46182), (156, 46287), (162, 46311),

Gene: JKSyngboy_4 Start: 2579, Stop: 3643, Start Num: 42
Candidate Starts for JKSyngboy_4:
(Start: 42 @2579 has 6 MA's), (53, 2636), (56, 2654), (57, 2663), (58, 2690), (83, 2984), (124, 3371), (133, 3431), (135, 3446), (136, 3449), (139, 3470), (153, 3575), (155, 3593), (158, 3629),

Gene: JoeyJr_71 Start: 45459, Stop: 46547, Start Num: 23
Candidate Starts for JoeyJr_71:
(16, 45378), (Start: 23 @45459 has 2 MA's), (38, 45534), (44, 45570), (46, 45594), (60, 45681), (70, 45780), (71, 45783), (74, 45804), (Start: 75 @45831 has 2 MA's), (77, 45852), (97, 46155), (132, 46317), (143, 46395), (144, 46398), (148, 46419), (150, 46428), (152, 46455), (162, 46536),

Gene: Keitabear_5 Start: 4089, Stop: 5051, Start Num: 75
Candidate Starts for Keitabear_5:
(2, 3228), (5, 3420), (6, 3450), (8, 3477), (12, 3513), (14, 3549), (25, 3666), (29, 3678), (41, 3765), (47, 3807), (49, 3819), (52, 3825), (66, 3969), (69, 3993), (Start: 75 @4089 has 2 MA's), (77, 4110), (84, 4245), (86, 4350), (91, 4446), (106, 4614), (108, 4635), (113, 4656), (143, 4905), (144, 4908), (146, 4911), (154, 4989),

Gene: KyMonks1A_92 Start: 50898, Stop: 49912, Start Num: 31
Candidate Starts for KyMonks1A_92:
(7, 51117), (11, 51069), (Start: 31 @50898 has 1 MA's), (Start: 39 @50829 has 2 MA's), (50, 50763), (55, 50739), (73, 50544), (76, 50493), (108, 50109), (122, 50034), (130, 49989), (137, 49950), (138, 49938),

Gene: Lennon_5 Start: 3295, Stop: 4143, Start Num: 75
Candidate Starts for Lennon_5:
(2, 2434), (5, 2626), (6, 2656), (8, 2683), (12, 2719), (14, 2755), (25, 2872), (29, 2884), (41, 2971), (47, 3013), (49, 3025), (52, 3031), (66, 3175), (69, 3199), (Start: 75 @3295 has 2 MA's), (77, 3316), (84, 3451), (86, 3556), (91, 3652), (106, 3820), (113, 3862), (143, 3997), (144, 4000), (146, 4003), (154, 4081),

Gene: Leperchaun_69 Start: 44915, Stop: 45781, Start Num: 61
Candidate Starts for Leperchaun_69:
(Start: 61 @44915 has 2 MA's), (70, 45014), (71, 45017), (74, 45038), (Start: 75 @45065 has 2 MA's), (77, 45086), (97, 45389), (132, 45551), (143, 45629), (144, 45632), (148, 45653), (150, 45662), (152, 45689), (162, 45770),

Gene: Lton_60 Start: 35512, Stop: 36642, Start Num: 19
Candidate Starts for Lton_60:
(Start: 18 @35509 has 1 MA's), (Start: 19 @35512 has 1 MA's), (24, 35560), (30, 35578), (54, 35713), (68, 35821), (70, 35857), (72, 35872), (84, 36064), (98, 36241), (101, 36268), (102, 36274), (110, 36346), (143, 36490), (144, 36493), (151, 36532), (152, 36550),

Gene: Magnar_43 Start: 33305, Stop: 32478, Start Num: 42
Candidate Starts for Magnar_43:
(Start: 42 @33305 has 6 MA's), (55, 33233), (76, 32987), (108, 32603), (122, 32528),

Gene: Moonbeam_69 Start: 44939, Stop: 46042, Start Num: 43
Candidate Starts for Moonbeam_69:
(21, 44816), (27, 44858), (Start: 43 @44939 has 14 MA's), (56, 45014), (63, 45074), (78, 45269), (84, 45392), (88, 45536), (89, 45557), (116, 45686), (123, 45752), (131, 45818), (132, 45821), (143,

45899), (144, 45902), (156, 46007), (162, 46031),

Gene: Neville_75 Start: 47371, Stop: 48234, Start Num: 43
Candidate Starts for Neville_75:
(Start: 43 @47371 has 14 MA's), (59, 47485), (66, 47557), (81, 47746), (82, 47761), (100, 48001), (104, 48037), (109, 48076), (113, 48097), (115, 48100), (118, 48121), (119, 48130), (120, 48154), (122, 48175), (128, 48193),

Gene: PFR1_45 Start: 31715, Stop: 32761, Start Num: 33
Candidate Starts for PFR1_45:
(20, 31649), (28, 31700), (30, 31706), (33, 31715), (36, 31739), (57, 31850), (62, 31886), (64, 31907), (68, 31943), (70, 31979), (71, 31982), (95, 32363), (96, 32372), (105, 32453), (131, 32531), (132, 32534), (142, 32600), (143, 32609), (144, 32612), (147, 32630), (152, 32666), (157, 32723), (161, 32744),

Gene: PFR2_47 Start: 33284, Stop: 34330, Start Num: 33
Candidate Starts for PFR2_47:
(20, 33218), (28, 33269), (30, 33275), (33, 33284), (36, 33308), (57, 33419), (62, 33455), (64, 33476), (68, 33512), (70, 33548), (71, 33551), (95, 33932), (96, 33941), (105, 34022), (131, 34100), (132, 34103), (142, 34169), (143, 34178), (144, 34181), (147, 34199), (152, 34235), (157, 34292), (161, 34313),

Gene: Papez_46 Start: 35129, Stop: 34302, Start Num: 42
Candidate Starts for Papez_46:
(Start: 42 @35129 has 6 MA's), (55, 35057), (76, 34811), (108, 34427), (122, 34352),

Gene: Phasih_65 Start: 42908, Stop: 44134, Start Num: 43
Candidate Starts for Phasih_65:
(17, 42761), (21, 42785), (27, 42827), (Start: 43 @42908 has 14 MA's), (56, 42983), (78, 43238), (84, 43361), (116, 43778), (123, 43844), (131, 43910), (132, 43913), (143, 43991), (144, 43994), (156, 44099), (162, 44123),

Gene: Polka14_75 Start: 46662, Stop: 47525, Start Num: 61
Candidate Starts for Polka14_75:
(Start: 61 @46662 has 2 MA's), (70, 46758), (71, 46761), (74, 46782), (Start: 75 @46809 has 2 MA's), (77, 46830), (97, 47133), (132, 47295), (143, 47373), (144, 47376), (148, 47397), (150, 47406), (152, 47433), (162, 47514),

Gene: Rabbitrun_78 Start: 47636, Stop: 48499, Start Num: 43
Candidate Starts for Rabbitrun_78:
(Start: 43 @47636 has 14 MA's), (59, 47750), (65, 47813), (82, 48026), (104, 48302), (113, 48362), (115, 48365), (118, 48386), (119, 48395), (120, 48419), (122, 48440), (128, 48458), (129, 48467),

Gene: Rita_76 Start: 46350, Stop: 47519, Start Num: 43
Candidate Starts for Rita_76:
(21, 46227), (27, 46269), (Start: 43 @46350 has 14 MA's), (45, 46365), (48, 46392), (53, 46407), (56, 46425), (78, 46680), (80, 46698), (84, 46803), (87, 46950), (93, 47019), (103, 47061), (114, 47145), (117, 47154), (121, 47217), (132, 47298), (143, 47376), (144, 47379), (148, 47400), (152, 47436), (156, 47484), (161, 47502), (162, 47508),

Gene: RitaG_71 Start: 45580, Stop: 46668, Start Num: 23
Candidate Starts for RitaG_71:

(16, 45499), (Start: 23 @45580 has 2 MA's), (38, 45655), (44, 45691), (46, 45715), (60, 45802), (70, 45901), (71, 45904), (74, 45925), (Start: 75 @45952 has 2 MA's), (77, 45973), (97, 46276), (132, 46438), (143, 46516), (144, 46519), (148, 46540), (150, 46549), (152, 46576), (162, 46657),

Gene: SchottB_4 Start: 2583, Stop: 3653, Start Num: 42
Candidate Starts for SchottB_4:
(1, 2040), (3, 2061), (Start: 42 @2583 has 6 MA's), (53, 2640), (58, 2694), (83, 2988), (124, 3381), (133, 3441), (135, 3456), (136, 3459), (139, 3480), (153, 3585), (155, 3603), (158, 3639),

Gene: ShiLan_70 Start: 46343, Stop: 47512, Start Num: 43
Candidate Starts for ShiLan_70:
(21, 46220), (27, 46262), (Start: 43 @46343 has 14 MA's), (45, 46358), (48, 46385), (53, 46400), (56, 46418), (78, 46673), (80, 46691), (84, 46796), (87, 46943), (93, 47012), (103, 47054), (114, 47138), (117, 47147), (121, 47210), (132, 47291), (143, 47369), (144, 47372), (148, 47393), (152, 47429), (156, 47477), (161, 47495), (162, 47501),

Gene: Spartoi_40 Start: 27031, Stop: 28128, Start Num: 18
Candidate Starts for Spartoi_40:
(13, 26962), (Start: 18 @27031 has 1 MA's), (26, 27088), (36, 27133), (60, 27274), (64, 27301), (68, 27337), (70, 27373), (71, 27376), (72, 27388), (Start: 75 @27424 has 2 MA's), (77, 27445), (79, 27484), (84, 27592), (85, 27619), (94, 27700), (95, 27718), (111, 27823), (134, 27895), (143, 27955), (144, 27958), (155, 28042), (157, 28075), (160, 28087),

Gene: Starcevich_69 Start: 45704, Stop: 46807, Start Num: 43
Candidate Starts for Starcevich_69:
(21, 45581), (27, 45623), (Start: 43 @45704 has 14 MA's), (56, 45779), (63, 45839), (78, 46034), (84, 46157), (88, 46301), (89, 46322), (116, 46451), (123, 46517), (131, 46583), (132, 46586), (143, 46664), (144, 46667), (156, 46772), (162, 46796),

Gene: Toron_77 Start: 47150, Stop: 48340, Start Num: 43
Candidate Starts for Toron_77:
(9, 46868), (22, 47030), (34, 47087), (35, 47090), (Start: 43 @47150 has 14 MA's), (48, 47192), (51, 47201), (56, 47225), (67, 47345), (78, 47480), (82, 47540), (92, 47825), (107, 47912), (109, 47927), (143, 48185), (144, 48188), (149, 48218), (155, 48269), (156, 48293), (159, 48302), (161, 48311), (163, 48332),

Gene: Trax_78 Start: 48336, Stop: 49199, Start Num: 43
Candidate Starts for Trax_78:
(Start: 43 @48336 has 14 MA's), (59, 48450), (66, 48522), (81, 48711), (82, 48726), (100, 48966), (104, 49002), (109, 49041), (113, 49062), (115, 49065), (118, 49086), (119, 49095), (120, 49119), (122, 49140), (128, 49158),

Gene: WillSterrel_71 Start: 45180, Stop: 46355, Start Num: 43
Candidate Starts for WillSterrel_71:
(21, 45057), (32, 45105), (Start: 43 @45180 has 14 MA's), (56, 45255), (78, 45510), (90, 45837), (99, 45861), (112, 45957), (113, 45963), (120, 46026), (125, 46059), (126, 46074), (127, 46086), (143, 46212), (144, 46215), (156, 46320), (162, 46344),

Gene: Yorick_69 Start: 45654, Stop: 46880, Start Num: 43
Candidate Starts for Yorick_69:
(10, 45402), (15, 45474), (21, 45531), (27, 45573), (Start: 43 @45654 has 14 MA's), (56, 45729), (63, 45789), (78, 45984), (84, 46107), (116, 46524), (123, 46590), (131, 46656), (132, 46659), (143, 46737), (144, 46740), (152, 46797), (156, 46845), (161, 46863), (162, 46869),