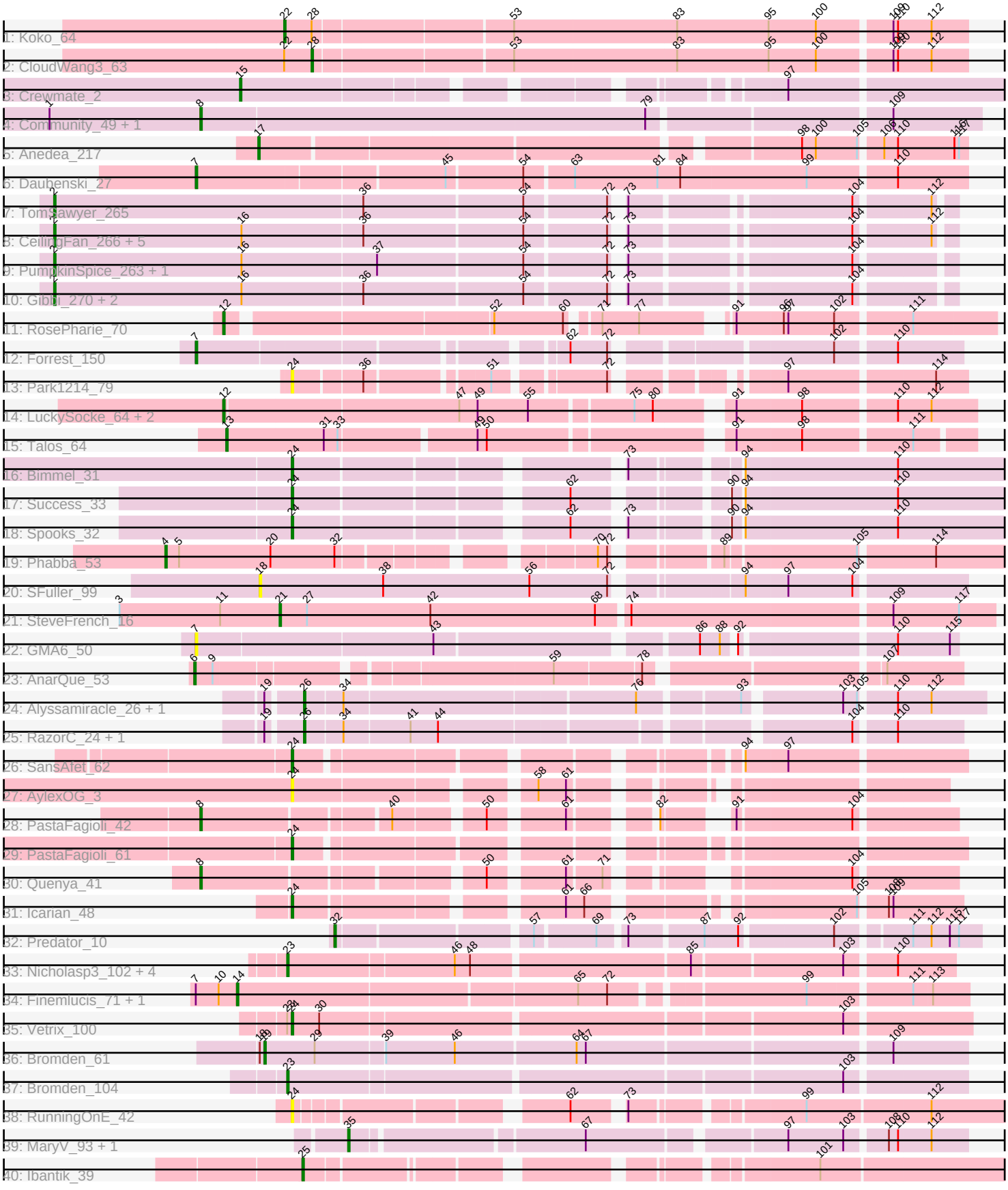
Pham 305032


1: Koko_64
2: CloudWang3_63
3: Crewmate_2
4: Community_49 + 1
5: Anedea_217
6: Daubenski_27
7: TomSawyer_265
8: CeilingFan_266 + 5
9: PumpkinSpice_263 + 1
10: Gibbi_270 + 2
11: RosePharie_70
12: Forrest_150
13: Park1214_79
14: LuckySocke_64 + 2
15: Talos_64
16: Bimmel_31
17: Success_33
18: Spooks_32
19: Phabba_53
20: SFuller_99
21: SteveFrench_16
22: GMA6_50
23: AnarQue_53
24: Alyssamiracle_26 + 1
25: RazorC_24 + 1
26: SansAfet_62
27: AylexOG_3
28: PastaFagioli_42
29: PastaFagioli_61
30: Quenya_41
31: Icarian_48
32: Predator_10
33: Nicholasp3_102 + 4
34: Finemlucis_71 + 1
35: Vetrix_100
36: Bromden_61
37: Bromden_104
38: RunningOnE_42
39: MaryV_93 + 1
40: Ibantik_39

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 305032 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305032 has 59 members, 8 are drafts.

Phages represented in each track:
- Track 1 : Koko_64
- Track 2 : CloudWang3_63
- Track 3 : Crewmate_2
- Track 4 : Community_49, Nitro_45
- Track 5 : Anedea_217
- Track 6 : Daubenski_27
- Track 7 : TomSawyer_265
- Track 8 : CeilingFan_266, Spelly_265, KentuckyRacer_267, JimJam_268, Spilled_268, Starbow_257
- Track 9 : PumpkinSpice_263, Wipeout_252
- Track 10 : Gibbi_270, Rikishi_261, AcciDwight_269
- Track 11 : RosePharie_70
- Track 12 : Forrest_150
- Track 13 : Park1214_79
- Track 14 : LuckySocke_64, Fudan_62, Alone3_65
- Track 15 : Talos_64
- Track 16 : Bimmel_31
- Track 17 : Success_33
- Track 18 : Spooks_32
- Track 19 : Phabba_53
- Track 20 : SFuller_99
- Track 21 : SteveFrench_16
- Track 22 : GMA6_50
- Track 23 : AnarQue_53
- Track 24 : Alyssamiracle_26, Genamy16_26
- Track 25 : RazorC_24, Zany_25
- Track 26 : SansAfet_62
- Track 27 : AylexOG_3
- Track 28 : PastaFagioli_42
- Track 29 : PastaFagioli_61
- Track 30 : Quenya_41
- Track 31 : Icarian_48
- Track 32 : Predator_10
- Track 33 : Nicholasp3_102, Kahlid_101, Gardann_101, Rumpelstiltskin_98, Underpass_94
- Track 34 : Finemlucis_71, Gabriela_68
- Track 35 : Vetrix_100

• Track 36 : Bromden_61
• Track 37 : Bromden_104
• Track 38 : RunningOnE_42
• Track 39 : MaryV_93, Wildcat_93
• Track 40 : Ibantik_39

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

The start number called the most often in the published annotations is 2, it was called in 10 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AcciDwight_269, CeilingFan_266, Gibbi_270, JimJam_268, KentuckyRacer_267, PumpkinSpice_263, Rikishi_261, Spelly_265, Spilled_268, Starbow_257, TomSawyer_265, Wipeout_252,

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

Genes that do not have the "Most Annotated" start:
• Alone3_65, Alyssamiracle_26, AnarQue_53, Anedea_217, AylexOG_3, Bimmel_31, Bromden_104, Bromden_61, CloudWang3_63, Community_49, Crewmate_2, Daubenski_27, Finemlucis_71, Forrest_150, Fudan_62, GMA6_50, Gabriela_68, Gardann_101, Genamy16_26, Ibantik_39, Icarian_48, Kahlid_101, Koko_64, LuckySocke_64, MaryV_93, Nicholasp3_102, Nitro_45, Park1214_79, PastaFagioli_42, PastaFagioli_61, Phabba_53, Predator_10, Quenya_41, RazorC_24, RosePharie_70, Rumpelstiltskin_98, RunningOnE_42, SFuller_99, SansAfet_62, Spooks_32, SteveFrench_16, Success_33, Talos_64, Underpass_94, Vetrix_100, Wildcat_93, Zany_25,

Summary by start number:

Start 2:
• Found in 12 of 59 (20.3%) of genes in pham
• Manual Annotations of this start: 10 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AcciDwight_269 (BE2), CeilingFan_266 (BE2), Gibbi_270 (BE2), JimJam_268 (BE2), KentuckyRacer_267 (BE2), PumpkinSpice_263 (BE2), Rikishi_261 (BE2), Spelly_265 (BE2), Spilled_268 (BE2), Starbow_257 (BE2), TomSawyer_265 (BE2), Wipeout_252 (BE2),

Start 4:
• Found in 1 of 59 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phabba_53 (C2),

Start 6:
• Found in 1 of 59 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 51

• Called 100.0% of time when present
• Phage (with cluster) where this start called: AnarQue_53 (DR),

Start 7:
• Found in 5 of 59 (8.5%) of genes in pham
• Manual Annotations of this start: 2 of 51
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Daubenski_27 (BE1), Forrest_150 (BK1), GMA6_50 (DQ),

Start 8:
• Found in 4 of 59 (6.8%) of genes in pham
• Manual Annotations of this start: 3 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Community_49 (AZ1), Nitro_45 (AZ1), PastaFagioli_42 (EB), Quenya_41 (EB),

Start 12:
• Found in 4 of 59 (6.8%) of genes in pham
• Manual Annotations of this start: 4 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alone3_65 (BS), Fudan_62 (BS), LuckySocke_64 (BS), RosePharie_70 (BF),

Start 13:
• Found in 1 of 59 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Talos_64 (BS),

Start 14:
• Found in 2 of 59 (3.4%) of genes in pham
• Manual Annotations of this start: 2 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finemlucis_71 (L2), Gabriela_68 (L2),

Start 15:
• Found in 1 of 59 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Crewmate_2 (AZ1),

Start 17:
• Found in 1 of 59 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Anedea_217 (BE1),

Start 18:
• Found in 2 of 59 (3.4%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: SFuller_99 (CF),

Start 19:
• Found in 5 of 59 (8.5%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Bromden_61 (L4),

Start 21:
• Found in 1 of 59 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SteveFrench_16 (CS2),

Start 22:
• Found in 2 of 59 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Koko_64 (A6),

Start 23:
• Found in 7 of 59 (11.9%) of genes in pham
• Manual Annotations of this start: 6 of 51
• Called 85.7% of time when present
• Phage (with cluster) where this start called: Bromden_104 (L4), Gardann_101 (L2), Kahlid_101 (L2), Nicholasp3_102 (L2), Rumpelstiltskin_98 (L2), Underpass_94 (L2),

Start 24:
• Found in 10 of 59 (16.9%) of genes in pham
• Manual Annotations of this start: 7 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AylexOG_3 (EB), Bimmel_31 (BT), Icarian_48 (EB), Park1214_79 (BS), PastaFagioli_61 (EB), RunningOnE_42 (UNK), SansAfet_62 (EB), Spooks_32 (BT), Success_33 (BT), Vetrix_100 (L2),

Start 25:
• Found in 1 of 59 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ibantik_39 (singleton),

Start 26:
• Found in 4 of 59 (6.8%) of genes in pham
• Manual Annotations of this start: 4 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alyssamiracle_26 (DV), Genamy16_26 (DV), RazorC_24 (DV), Zany_25 (DV),

Start 28:
• Found in 2 of 59 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 50.0% of time when present
• Phage (with cluster) where this start called: CloudWang3_63 (A6),

Start 32:
• Found in 2 of 59 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 51
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Predator_10 (H1),

Start 35:
• Found in 2 of 59 (3.4%) of genes in pham
• Manual Annotations of this start: 2 of 51
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MaryV_93 (V), Wildcat_93 (V),

Summary by clusters:

There are 21 clusters represented in this pham: CF, singleton, UNK, DQ, H1, BS, BF, EB, BT, DV, L4, L2, A6, BK1, V, BE2, AZ1, BE1, DR, C2, CS2,

Info for manual annotations of cluster A6:
•Start number 22 was manually annotated 1 time for cluster A6.
•Start number 28 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster AZ1:
•Start number 8 was manually annotated 1 time for cluster AZ1.
•Start number 15 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster BE1:
•Start number 7 was manually annotated 1 time for cluster BE1.
•Start number 17 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 2 was manually annotated 10 times for cluster BE2.

Info for manual annotations of cluster BF:
•Start number 12 was manually annotated 1 time for cluster BF.

Info for manual annotations of cluster BK1:
•Start number 7 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BS:
•Start number 12 was manually annotated 3 times for cluster BS.
•Start number 13 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster BT:
•Start number 24 was manually annotated 3 times for cluster BT.

Info for manual annotations of cluster C2:
•Start number 4 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CS2:
•Start number 21 was manually annotated 1 time for cluster CS2.

Info for manual annotations of cluster DR:
•Start number 6 was manually annotated 1 time for cluster DR.

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

Info for manual annotations of cluster EB:
•Start number 8 was manually annotated 2 times for cluster EB.
•Start number 24 was manually annotated 3 times for cluster EB.

Info for manual annotations of cluster H1:
•Start number 32 was manually annotated 1 time for cluster H1.

Info for manual annotations of cluster L2:
•Start number 14 was manually annotated 2 times for cluster L2.
•Start number 23 was manually annotated 5 times for cluster L2.
•Start number 24 was manually annotated 1 time for cluster L2.

Info for manual annotations of cluster L4:
•Start number 19 was manually annotated 1 time for cluster L4.
•Start number 23 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster V:
•Start number 35 was manually annotated 2 times for cluster V.

Gene Information:

Gene: AcciDwight_269 Start: 119645, Stop: 119103, Start Num: 2
Candidate Starts for AcciDwight_269:
(Start: 2 @119645 has 10 MA's), (16, 119522), (36, 119444), (54, 119342), (72, 119291), (73, 119288), (104, 119159),

Gene: Alone3_65 Start: 23323, Stop: 23781, Start Num: 12
Candidate Starts for Alone3_65:
(Start: 12 @23323 has 4 MA's), (47, 23473), (49, 23485), (55, 23518), (75, 23581), (80, 23593), (91, 23632), (98, 23674), (110, 23731), (112, 23752),

Gene: Alyssamiracle_26 Start: 15136, Stop: 15546, Start Num: 26
Candidate Starts for Alyssamiracle_26:
(Start: 19 @15115 has 1 MA's), (Start: 26 @15136 has 4 MA's), (34, 15160), (76, 15343), (93, 15403), (103, 15460), (105, 15469), (110, 15490), (112, 15511),

Gene: AnarQue_53 Start: 46202, Stop: 45753, Start Num: 6
Candidate Starts for AnarQue_53:
(Start: 6 @46202 has 1 MA's), (9, 46190), (59, 45992), (78, 45938), (107, 45800),

Gene: Anedea_217 Start: 106294, Stop: 106719, Start Num: 17
Candidate Starts for Anedea_217:
(Start: 17 @106294 has 1 MA's), (98, 106618), (100, 106627), (105, 106654), (106, 106666), (110, 106675), (116, 106711), (117, 106714),

Gene: AylexOG_3 Start: 681, Stop: 1040, Start Num: 24
Candidate Starts for AylexOG_3:
(Start: 24 @681 has 7 MA's), (58, 819), (61, 837),

Gene: Bimmel_31 Start: 19820, Stop: 19383, Start Num: 24
Candidate Starts for Bimmel_31:
(Start: 24 @19820 has 7 MA's), (73, 19634), (94, 19574), (110, 19475),

Gene: Bromden_61 Start: 43963, Stop: 44400, Start Num: 19
Candidate Starts for Bromden_61:
(18, 43960), (Start: 19 @43963 has 1 MA's), (29, 43996), (39, 44038), (46, 44083), (64, 44158), (67, 44164), (109, 44353),

Gene: Bromden_104 Start: 63270, Stop: 63686, Start Num: 23
Candidate Starts for Bromden_104:
(Start: 23 @63270 has 6 MA's), (103, 63612),

Gene: CeilingFan_266 Start: 120156, Stop: 119614, Start Num: 2
Candidate Starts for CeilingFan_266:
(Start: 2 @120156 has 10 MA's), (16, 120033), (36, 119955), (54, 119853), (72, 119802), (73, 119799), (104, 119670), (112, 119625),

Gene: CloudWang3_63 Start: 38546, Stop: 38136, Start Num: 28
Candidate Starts for CloudWang3_63:
(Start: 22 @38564 has 1 MA's), (Start: 28 @38546 has 1 MA's), (53, 38423), (83, 38318), (95, 38258), (100, 38228), (109, 38183), (110, 38180), (112, 38159),

Gene: Community_49 Start: 35475, Stop: 35966, Start Num: 8
Candidate Starts for Community_49:
(1, 35376), (Start: 8 @35475 has 3 MA's), (79, 35763), (109, 35910),

Gene: Crewmate_2 Start: 546, Stop: 995, Start Num: 15
Candidate Starts for Crewmate_2:
(Start: 15 @546 has 1 MA's), (97, 846),

Gene: Daubenski_27 Start: 12504, Stop: 12022, Start Num: 7
Candidate Starts for Daubenski_27:
(Start: 7 @12504 has 2 MA's), (45, 12348), (54, 12300), (63, 12270), (81, 12216), (84, 12201), (99, 12120), (110, 12066),

Gene: Finemlucis_71 Start: 49120, Stop: 49566, Start Num: 14
Candidate Starts for Finemlucis_71:
(Start: 7 @49093 has 2 MA's), (10, 49108), (Start: 14 @49120 has 2 MA's), (65, 49336), (72, 49354), (99, 49468), (111, 49531), (113, 49543),

Gene: Forrest_150 Start: 82816, Stop: 83256, Start Num: 7
Candidate Starts for Forrest_150:
(Start: 7 @82816 has 2 MA's), (62, 83032), (72, 83056), (102, 83179), (110, 83215),

Gene: Fudan_62 Start: 22684, Stop: 23142, Start Num: 12
Candidate Starts for Fudan_62:

(Start: 12 @22684 has 4 MA's), (47, 22834), (49, 22846), (55, 22879), (75, 22942), (80, 22954), (91, 22993), (98, 23035), (110, 23092), (112, 23113),

Gene: GMA6_50 Start: 43670, Stop: 43215, Start Num: 7
Candidate Starts for GMA6_50:
(Start: 7 @43670 has 2 MA's), (43, 43520), (86, 43364), (88, 43352), (92, 43346), (110, 43253), (115, 43220),

Gene: Gabriela_68 Start: 47246, Stop: 47692, Start Num: 14
Candidate Starts for Gabriela_68:
(Start: 7 @47219 has 2 MA's), (10, 47234), (Start: 14 @47246 has 2 MA's), (65, 47462), (72, 47480), (99, 47594), (111, 47657), (113, 47669),

Gene: Gardann_101 Start: 61924, Stop: 62331, Start Num: 23
Candidate Starts for Gardann_101:
(Start: 23 @61924 has 6 MA's), (46, 62029), (48, 62038), (85, 62173), (103, 62266), (110, 62296),

Gene: Genamy16_26 Start: 15136, Stop: 15546, Start Num: 26
Candidate Starts for Genamy16_26:
(Start: 19 @15115 has 1 MA's), (Start: 26 @15136 has 4 MA's), (34, 15160), (76, 15343), (93, 15403), (103, 15460), (105, 15469), (110, 15490), (112, 15511),

Gene: Gibbi_270 Start: 119649, Stop: 119107, Start Num: 2
Candidate Starts for Gibbi_270:
(Start: 2 @119649 has 10 MA's), (16, 119526), (36, 119448), (54, 119346), (72, 119295), (73, 119292), (104, 119163),

Gene: Ibantik_39 Start: 18281, Stop: 17859, Start Num: 25
Candidate Starts for Ibantik_39:
(Start: 25 @18281 has 1 MA's), (101, 17999),

Gene: Icarian_48 Start: 33307, Stop: 33684, Start Num: 24
Candidate Starts for Icarian_48:
(Start: 24 @33307 has 7 MA's), (61, 33460), (66, 33472), (105, 33622), (108, 33637), (109, 33640),

Gene: JimJam_268 Start: 121085, Stop: 120543, Start Num: 2
Candidate Starts for JimJam_268:
(Start: 2 @121085 has 10 MA's), (16, 120962), (36, 120884), (54, 120782), (72, 120731), (73, 120728), (104, 120599), (112, 120554),

Gene: Kahlid_101 Start: 61842, Stop: 62249, Start Num: 23
Candidate Starts for Kahlid_101:
(Start: 23 @61842 has 6 MA's), (46, 61947), (48, 61956), (85, 62091), (103, 62184), (110, 62214),

Gene: KentuckyRacer_267 Start: 121000, Stop: 120458, Start Num: 2
Candidate Starts for KentuckyRacer_267:
(Start: 2 @121000 has 10 MA's), (16, 120877), (36, 120799), (54, 120697), (72, 120646), (73, 120643), (104, 120514), (112, 120469),

Gene: Koko_64 Start: 38904, Stop: 38476, Start Num: 22
Candidate Starts for Koko_64:
(Start: 22 @38904 has 1 MA's), (Start: 28 @38886 has 1 MA's), (53, 38763), (83, 38658), (95, 38598), (100, 38568), (109, 38523), (110, 38520), (112, 38499),

Gene: LuckySocke_64 Start: 22633, Stop: 23091, Start Num: 12
Candidate Starts for LuckySocke_64:
(Start: 12 @22633 has 4 MA's), (47, 22783), (49, 22795), (55, 22828), (75, 22891), (80, 22903), (91, 22942), (98, 22984), (110, 23041), (112, 23062),

Gene: MaryV_93 Start: 56140, Stop: 56508, Start Num: 35
Candidate Starts for MaryV_93:
(Start: 35 @56140 has 2 MA's), (67, 56281), (97, 56398), (103, 56434), (108, 56458), (110, 56464), (112, 56485),

Gene: Nicholasp3_102 Start: 61924, Stop: 62331, Start Num: 23
Candidate Starts for Nicholasp3_102:
(Start: 23 @61924 has 6 MA's), (46, 62029), (48, 62038), (85, 62173), (103, 62266), (110, 62296),

Gene: Nitro_45 Start: 34067, Stop: 34558, Start Num: 8
Candidate Starts for Nitro_45:
(1, 33968), (Start: 8 @34067 has 3 MA's), (79, 34355), (109, 34502),

Gene: Park1214_79 Start: 27965, Stop: 28336, Start Num: 24
Candidate Starts for Park1214_79:
(Start: 24 @27965 has 7 MA's), (36, 28007), (51, 28079), (72, 28142), (97, 28226), (114, 28316),

Gene: PastaFagioli_42 Start: 29819, Stop: 30232, Start Num: 8
Candidate Starts for PastaFagioli_42:
(Start: 8 @29819 has 3 MA's), (40, 29933), (50, 29984), (61, 30026), (82, 30068), (91, 30098), (104, 30170),

Gene: PastaFagioli_61 Start: 39171, Stop: 39551, Start Num: 24
Candidate Starts for PastaFagioli_61:
(Start: 24 @39171 has 7 MA's),

Gene: Phabba_53 Start: 19044, Stop: 18553, Start Num: 4
Candidate Starts for Phabba_53:
(Start: 4 @19044 has 1 MA's), (5, 19035), (20, 18975), (Start: 32 @18933 has 1 MA's), (70, 18795), (72, 18789), (89, 18732), (105, 18651), (114, 18606),

Gene: Predator_10 Start: 6815, Stop: 7189, Start Num: 32
Candidate Starts for Predator_10:
(Start: 32 @6815 has 1 MA's), (57, 6929), (69, 6965), (73, 6980), (87, 7025), (92, 7046), (102, 7103), (111, 7145), (112, 7157), (115, 7169), (117, 7175),

Gene: PumpkinSpice_263 Start: 119441, Stop: 118899, Start Num: 2
Candidate Starts for PumpkinSpice_263:
(Start: 2 @119441 has 10 MA's), (16, 119318), (37, 119231), (54, 119138), (72, 119087), (73, 119084), (104, 118955),

Gene: Quenya_41 Start: 29700, Stop: 30113, Start Num: 8
Candidate Starts for Quenya_41:
(Start: 8 @29700 has 3 MA's), (50, 29865), (61, 29907), (71, 29928), (104, 30051),

Gene: RazorC_24 Start: 15136, Stop: 15528, Start Num: 26
Candidate Starts for RazorC_24:

(Start: 19 @15115 has 1 MA's), (Start: 26 @15136 has 4 MA's), (34, 15160), (41, 15202), (44, 15220), (104, 15463), (110, 15487),

Gene: Rikishi_261 Start: 119623, Stop: 119081, Start Num: 2
Candidate Starts for Rikishi_261:
(Start: 2 @119623 has 10 MA's), (16, 119500), (36, 119422), (54, 119320), (72, 119269), (73, 119266), (104, 119137),

Gene: RosePharie_70 Start: 35737, Stop: 36186, Start Num: 12
Candidate Starts for RosePharie_70:
(Start: 12 @35737 has 4 MA's), (52, 35896), (60, 35941), (71, 35956), (77, 35980), (91, 36025), (96, 36055), (97, 36058), (102, 36088), (111, 36133),

Gene: Rumpelstiltskin_98 Start: 61717, Stop: 62124, Start Num: 23
Candidate Starts for Rumpelstiltskin_98:
(Start: 23 @61717 has 6 MA's), (46, 61822), (48, 61831), (85, 61966), (103, 62059), (110, 62089),

Gene: RunningOnE_42 Start: 18641, Stop: 18213, Start Num: 24
Candidate Starts for RunningOnE_42:
(Start: 24 @18641 has 7 MA's), (62, 18488), (73, 18461), (99, 18362), (112, 18284),

Gene: SFuller_99 Start: 58114, Stop: 58551, Start Num: 18
Candidate Starts for SFuller_99:
(18, 58114), (38, 58195), (56, 58291), (72, 58342), (94, 58414), (97, 58441), (104, 58483),

Gene: SansAfet_62 Start: 38774, Stop: 39154, Start Num: 24
Candidate Starts for SansAfet_62:
(Start: 24 @38774 has 7 MA's), (94, 39017), (97, 39044),

Gene: Spelly_265 Start: 118353, Stop: 117811, Start Num: 2
Candidate Starts for Spelly_265:
(Start: 2 @118353 has 10 MA's), (16, 118230), (36, 118152), (54, 118050), (72, 117999), (73, 117996), (104, 117867), (112, 117822),

Gene: Spilled_268 Start: 120017, Stop: 119475, Start Num: 2
Candidate Starts for Spilled_268:
(Start: 2 @120017 has 10 MA's), (16, 119894), (36, 119816), (54, 119714), (72, 119663), (73, 119660), (104, 119531), (112, 119486),

Gene: Spooks_32 Start: 20834, Stop: 20397, Start Num: 24
Candidate Starts for Spooks_32:
(Start: 24 @20834 has 7 MA's), (62, 20675), (73, 20648), (90, 20594), (94, 20588), (110, 20489),

Gene: Starbow_257 Start: 118397, Stop: 117855, Start Num: 2
Candidate Starts for Starbow_257:
(Start: 2 @118397 has 10 MA's), (16, 118274), (36, 118196), (54, 118094), (72, 118043), (73, 118040), (104, 117911), (112, 117866),

Gene: SteveFrench_16 Start: 15937, Stop: 16392, Start Num: 21
Candidate Starts for SteveFrench_16:
(3, 15832), (11, 15898), (Start: 21 @15937 has 1 MA's), (27, 15955), (42, 16036), (68, 16144), (74, 16162), (109, 16327), (117, 16369),

Gene: Success_33 Start: 20053, Stop: 19616, Start Num: 24
Candidate Starts for Success_33:
(Start: 24 @20053 has 7 MA's), (62, 19894), (90, 19813), (94, 19807), (110, 19708),

Gene: Talos_64 Start: 22480, Stop: 22926, Start Num: 13
Candidate Starts for Talos_64:
(Start: 13 @22480 has 1 MA's), (31, 22543), (33, 22552), (49, 22636), (50, 22642), (91, 22783), (98, 22825), (111, 22891),

Gene: TomSawyer_265 Start: 121328, Stop: 120786, Start Num: 2
Candidate Starts for TomSawyer_265:
(Start: 2 @121328 has 10 MA's), (36, 121127), (54, 121025), (72, 120974), (73, 120971), (104, 120842), (112, 120797),

Gene: Underpass_94 Start: 56960, Stop: 57367, Start Num: 23
Candidate Starts for Underpass_94:
(Start: 23 @56960 has 6 MA's), (46, 57065), (48, 57074), (85, 57209), (103, 57302), (110, 57332),

Gene: Vetrix_100 Start: 61960, Stop: 62376, Start Num: 24
Candidate Starts for Vetrix_100:
(Start: 23 @61957 has 6 MA's), (Start: 24 @61960 has 7 MA's), (30, 61978), (103, 62299),

Gene: Wildcat_93 Start: 56150, Stop: 56518, Start Num: 35
Candidate Starts for Wildcat_93:
(Start: 35 @56150 has 2 MA's), (67, 56291), (97, 56408), (103, 56444), (108, 56468), (110, 56474), (112, 56495),

Gene: Wipeout_252 Start: 120280, Stop: 119738, Start Num: 2
Candidate Starts for Wipeout_252:
(Start: 2 @120280 has 10 MA's), (16, 120157), (37, 120070), (54, 119977), (72, 119926), (73, 119923), (104, 119794),

Gene: Zany_25 Start: 17287, Stop: 17679, Start Num: 26
Candidate Starts for Zany_25:
(Start: 19 @17266 has 1 MA's), (Start: 26 @17287 has 4 MA's), (34, 17311), (41, 17353), (44, 17371), (104, 17614), (110, 17638),