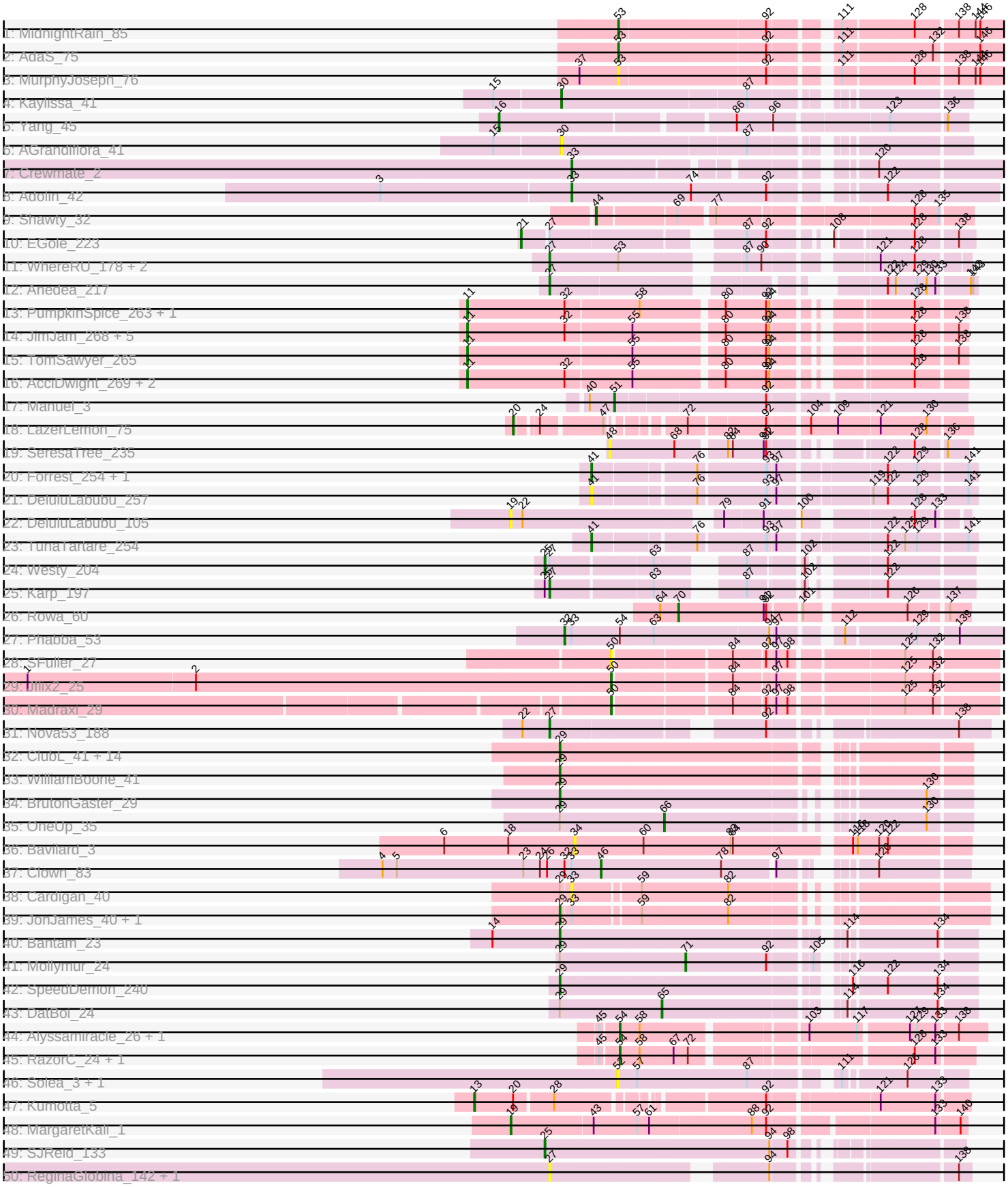
Pham 280287


1: MidnightRain_85
2: AdaS_75
3: MurphyJoseph_76
4: Kaylissa_41
5: Yang_45
6: AGrandiflora_41
7: Crewmate_2
8: Adolin_42
9: Shawty_32
10: EGole_223
11: WhereRU_178 + 2
12: Anedea_217
13: PumpkinSpice_263 + 1
14: JimJam_268 + 5
15: TomSawyer_265
16: AcciDwight_269 + 2
17: Manuel_3
18: LazerLemon_75
19: SeresaTree_235
20: Forrest_254 + 1
21: DeluluLabubu_257
22: DeluluLabubu_105
23: TunaTartare_254
24: Westy_204
25: Karp_197
26: Rowa_60
27: Phabba_53
28: SFuller_27
29: Dmix2_25
30: Madraxi_29
31: Nova53_188
32: ClubL_41 + 14
33: WilliamBoone_41
34: BrutonGaster_29
35: OneUp_35
36: Bavliard_3
37: Clown_83
38: Cardigan_40
39: JonJames_40 + 1
40: Bantam_23
41: Mollymur_24
42: SpeedDemon_240
43: DatBoi_24
44: Alyssamiracle_26 + 1
45: RazorC_24 + 1
46: Solea_3 + 1
47: Kumotta_5
48: MargaretKail_1
49: SJReid_133
50: ReginaGlobina_142 + 1

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51: A3Wally_146
52: Erasmago_158
53: Zooman_139
54: Predator_10
55: Omega_199
56: Vetrix_100
57: Finemilucis_71 + 1
58: Underpass_94 + 4
59: Bromden_104
60: Quby_89
61: Bromden_61
62: MaryV_93 + 1
63: Gaia_140

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 280287 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280287 has 99 members, 17 are drafts.

Phages represented in each track:
- Track 1 : MidnightRain_85
- Track 2 : AdaS_75
- Track 3 : MurphyJoseph_76
- Track 4 : Kaylissa_41
- Track 5 : Yang_45
- Track 6 : AGrandiflora_41
- Track 7 : Crewmate_2
- Track 8 : Adolin_42
- Track 9 : Shawty_32
- Track 10 : EGole_223
- Track 11 : WhereRU_178, Davielle_179, Persimmon_179
- Track 12 : Anedea_217
- Track 13 : PumpkinSpice_263, Wipeout_252
- Track 14 : JimJam_268, Starbow_257, CeilingFan_266, KentuckyRacer_267, Spelly_265, Spilled_268
- Track 15 : TomSawyer_265
- Track 16 : AcciDwight_269, Gibbi_270, Rikishi_261
- Track 17 : Manuel_3
- Track 18 : LazerLemon_75
- Track 19 : SeresaTree_235
- Track 20 : Forrest_254, Jada_255
- Track 21 : DeluluLabubu_257
- Track 22 : DeluluLabubu_105
- Track 23 : TunaTartare_254
- Track 24 : Westy_204
- Track 25 : Karp_197
- Track 26 : Rowa_60
- Track 27 : Phabba_53
- Track 28 : SFuller_27
- Track 29 : Jflix2_25
- Track 30 : Madraxi_29
- Track 31 : Nova53_188
- Track 32 : ClubL_41, Geeche_40, Dusty_40, Miskis_39, Lozinak_41, Engineer_42, Abscondus_40, Toniann_41, Norvs_42, Cucurbita_43, Aphelion_41, Smoothie_42, Culver_41, PhinkBoden_41, Bachita_43
- Track 33 : WilliamBoone_41
- Track 34 : BrutonGaster_29

• Track 35 : OneUp_35
• Track 36 : Bavilard_3
• Track 37 : Clown_83
• Track 38 : Cardigan_40
• Track 39 : JonJames_40, Yvonnetastic_38
• Track 40 : Bantam_23
• Track 41 : Mollymur_24
• Track 42 : SpeedDemon_240
• Track 43 : DatBoi_24
• Track 44 : Alyssamiracle_26, Genamy16_26
• Track 45 : RazorC_24, Zany_25
• Track 46 : Solea_3, Milomuff_3
• Track 47 : Kumotta_5
• Track 48 : MargaretKali_1
• Track 49 : SJReid_133
• Track 50 : ReginaGlobina_142, LeoJr_143
• Track 51 : A3Wally_146
• Track 52 : Erasmago_158
• Track 53 : Zooman_139
• Track 54 : Predator_10
• Track 55 : Omega_199
• Track 56 : Vetrix_100
• Track 57 : Finemlucis_71, Gabriela_68
• Track 58 : Underpass_94, Nicholasp3_102, Gardann_101, Rumpelstiltskin_98, Kahlid_101
• Track 59 : Bromden_104
• Track 60 : Quby_89
• Track 61 : Bromden_61
• Track 62 : MaryV_93, Wildcat_93
• Track 63 : Gaia_140

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

The start number called the most often in the published annotations is 29, it was called in 20 of the 82 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abscondus_40, Aphelion_41, Bachita_43, Bantam_23, BrutonGaster_29, ClubL_41, Cucurbita_43, Culver_41, Dusty_40, Engineer_42, Geeche_40, JonJames_40, Lozinak_41, Miskis_39, Norvs_42, PhinkBoden_41, Smoothie_42, SpeedDemon_240, Toniann_41, WilliamBoone_41, Yvonnetastic_38,

Genes that have the "Most Annotated" start but do not call it:
• Cardigan_40, DatBoi_24, Mollymur_24, OneUp_35,

Genes that do not have the "Most Annotated" start:
• A3Wally_146, AGrandiflora_41, AcciDwight_269, AdaS_75, Adolin_42, Alyssamiracle_26, Anedea_217, Bavilard_3, Bromden_104, Bromden_61, CeilingFan_266, Clown_83, Crewmate_2, Davielle_179, DeluluLabubu_105, DeluluLabubu_257, EGole_223, Erasmago_158, Finemlucis_71, Forrest_254,

Gabriela_68, Gaia_140, Gardann_101, Genamy16_26, Gibbi_270, Jada_255, Jflix2_25, JimJam_268, Kahlid_101, Karp_197, Kaylissa_41, KentuckyRacer_267, Kumotta_5, LazerLemon_75, LeoJr_143, Madraxi_29, Manuel_3, MargaretKali_1, MaryV_93, MidnightRain_85, Milomuff_3, MurphyJoseph_76, Nicholasp3_102, Nova53_188, Omega_199, Persimmon_179, Phabba_53, Predator_10, PumpkinSpice_263, Quby_89, RazorC_24, ReginaGlobina_142, Rikishi_261, Rowa_60, Rumpelstiltskin_98, SFuller_27, SJReid_133, SeresaTree_235, Shawty_32, Solea_3, Spelly_265, Spilled_268, Starbow_257, TomSawyer_265, TunaTartare_254, Underpass_94, Vetrix_100, Westy_204, WhereRU_178, Wildcat_93, Wipeout_252, Yang_45, Zany_25, Zooman_139,

Summary by start number:

Start 10:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Omega_199 (J),

Start 11:
• Found in 12 of 99 (12.1%) of genes in pham
• Manual Annotations of this start: 10 of 82
• 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 13:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kumotta_5 (FB),

Start 16:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yang_45 (AZ1),

Start 17:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gaia_140 (X),

Start 19:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DeluluLabubu_105 (BK1), MargaretKali_1 (FB),

Start 20:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 50.0% of time when present
• Phage (with cluster) where this start called: LazerLemon_75 (BH),

Start 21:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EGole_223 (BE1),

Start 24:
• Found in 3 of 99 (3.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 33.3% of time when present
• Phage (with cluster) where this start called: A3Wally_146 (GD1),

Start 25:
• Found in 3 of 99 (3.0%) of genes in pham
• Manual Annotations of this start: 2 of 82
• Called 66.7% of time when present
• Phage (with cluster) where this start called: SJReid_133 (FC), Westy_204 (BK1),

Start 27:
• Found in 12 of 99 (12.1%) of genes in pham
• Manual Annotations of this start: 7 of 82
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Anedea_217 (BE1), Davielle_179 (BE1), Erasmago_158 (GD2), Karp_197 (BK1), LeoJr_143 (FC), Nova53_188 (CG), Persimmon_179 (BE1), ReginaGlobina_142 (FC), WhereRU_178 (BE1), Zooman_139 (GD2),

Start 29:
• Found in 25 of 99 (25.3%) of genes in pham
• Manual Annotations of this start: 20 of 82
• Called 84.0% of time when present
• Phage (with cluster) where this start called: Abscondus_40 (CQ1), Aphelion_41 (CQ1), Bachita_43 (CQ1), Bantam_23 (DL), BrutonGaster_29 (CQ2), ClubL_41 (CQ1), Cucurbita_43 (CQ1), Culver_41 (CQ1), Dusty_40 (CQ1), Engineer_42 (CQ1), Geeche_40 (CQ1), JonJames_40 (DD), Lozinak_41 (CQ1), Miskis_39 (CQ1), Norvs_42 (CQ1), PhinkBoden_41 (CQ1), Smoothie_42 (CQ1), SpeedDemon_240 (DL), Toniann_41 (CQ1), WilliamBoone_41 (CQ1), Yvonnetastic_38 (DD),

Start 30:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AGrandiflora_41 (AZ1), Kaylissa_41 (AZ1),

Start 32:
• Found in 13 of 99 (13.1%) of genes in pham

• Manual Annotations of this start: 1 of 82
• Called 7.7% of time when present
• Phage (with cluster) where this start called: Phabba_53 (C2),

Start 33:
• Found in 7 of 99 (7.1%) of genes in pham
• Manual Annotations of this start: 2 of 82
• Called 42.9% of time when present
• Phage (with cluster) where this start called: Adolin_42 (AZ1), Cardigan_40 (DD), Crewmate_2 (AZ1),

Start 34:
• Found in 1 of 99 (1.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bavilard_3 (CT),

Start 38:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bromden_61 (L4),

Start 39:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 2 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finemlucis_71 (L2), Gabriela_68 (L2),

Start 41:
• Found in 4 of 99 (4.0%) of genes in pham
• Manual Annotations of this start: 3 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DeluluLabubu_257 (BK1), Forrest_254 (BK1), Jada_255 (BK1), TunaTartare_254 (BK1),

Start 42:
• Found in 7 of 99 (7.1%) of genes in pham
• Manual Annotations of this start: 6 of 82
• 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 44:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 2 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shawty_32 (BB1), Vetrix_100 (L2),

Start 46:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Clown_83 (DC2), Quby_89 (L4),

Start 48:
• Found in 2 of 99 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: SeresaTree_235 (BK1),

Start 50:
• Found in 3 of 99 (3.0%) of genes in pham
• Manual Annotations of this start: 2 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jflix2_25 (CF), Madraxi_29 (CF), SFuller_27 (CF),

Start 51:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Manuel_3 (BF),

Start 52:
• Found in 3 of 99 (3.0%) of genes in pham
• No Manual Annotations of this start.
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Milomuff_3 (EB), Solea_3 (EB),

Start 53:
• Found in 6 of 99 (6.1%) of genes in pham
• Manual Annotations of this start: 2 of 82
• Called 50.0% of time when present
• Phage (with cluster) where this start called: AdaS_75 (AY), MidnightRain_85 (AY), MurphyJoseph_76 (AY),

Start 54:
• Found in 5 of 99 (5.1%) of genes in pham
• Manual Annotations of this start: 4 of 82
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Alyssamiracle_26 (DV), Genamy16_26 (DV), RazorC_24 (DV), Zany_25 (DV),

Start 56:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 2 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MaryV_93 (V), Wildcat_93 (V),

Start 57:
• Found in 4 of 99 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Predator_10 (H1),

Start 65:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DatBoi_24 (DL),

Start 66:
• Found in 2 of 99 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 50.0% of time when present
• Phage (with cluster) where this start called: OneUp_35 (CQ2),

Start 70:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Rowa_60 (BL),

Start 71:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 82
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mollymur_24 (DL),

Summary by clusters:

There are 30 clusters represented in this pham: GD1, BF, BL, DD, BH, GD2, FB, FC, DV, DL, CQ2, CQ1, BB1, J, CG, CF, EB, L4, L2, BK1, V, AY, X, DC2, C2, CT, H1, BE2, AZ1, BE1,

Info for manual annotations of cluster AY:
•Start number 53 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster AZ1:
•Start number 16 was manually annotated 1 time for cluster AZ1.
•Start number 30 was manually annotated 1 time for cluster AZ1.
•Start number 33 was manually annotated 2 times for cluster AZ1.

Info for manual annotations of cluster BB1:
•Start number 44 was manually annotated 1 time for cluster BB1.

Info for manual annotations of cluster BE1:
•Start number 21 was manually annotated 1 time for cluster BE1.
•Start number 27 was manually annotated 4 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 11 was manually annotated 10 times for cluster BE2.

Info for manual annotations of cluster BF:
•Start number 51 was manually annotated 1 time for cluster BF.

Info for manual annotations of cluster BH:
•Start number 20 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster BK1:
•Start number 25 was manually annotated 1 time for cluster BK1.
•Start number 27 was manually annotated 1 time for cluster BK1.
•Start number 41 was manually annotated 3 times for cluster BK1.

Info for manual annotations of cluster BL:
•Start number 70 was manually annotated 1 time for cluster BL.

Info for manual annotations of cluster C2:
•Start number 32 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CF:
•Start number 50 was manually annotated 2 times for cluster CF.

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

Info for manual annotations of cluster CQ1:
•Start number 29 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 29 was manually annotated 1 time for cluster CQ2.
•Start number 66 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster DC2:
•Start number 46 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DD:
•Start number 29 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DL:
•Start number 29 was manually annotated 2 times for cluster DL.
•Start number 65 was manually annotated 1 time for cluster DL.
•Start number 71 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DV:
•Start number 54 was manually annotated 4 times for cluster DV.

Info for manual annotations of cluster FB:
•Start number 13 was manually annotated 1 time for cluster FB.
•Start number 19 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FC:
•Start number 25 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster GD1:
•Start number 24 was manually annotated 1 time for cluster GD1.

Info for manual annotations of cluster GD2:
•Start number 27 was manually annotated 1 time for cluster GD2.

Info for manual annotations of cluster H1:
•Start number 57 was manually annotated 1 time for cluster H1.

Info for manual annotations of cluster J:
•Start number 10 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster L2:
•Start number 39 was manually annotated 2 times for cluster L2.
•Start number 42 was manually annotated 5 times for cluster L2.
•Start number 44 was manually annotated 1 time for cluster L2.

Info for manual annotations of cluster L4:
•Start number 38 was manually annotated 1 time for cluster L4.
•Start number 42 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster V:
•Start number 56 was manually annotated 2 times for cluster V.

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

Gene Information:

Gene: A3Wally_146 Start: 90094, Stop: 90525, Start Num: 24
Candidate Starts for A3Wally_146:
(Start: 24 @90094 has 1 MA's), (94, 90337), (132, 90481),

Gene: AGrandiflora_41 Start: 29625, Stop: 30068, Start Num: 30
Candidate Starts for AGrandiflora_41:
(15, 29544), (Start: 30 @29625 has 1 MA's), (87, 29847),

Gene: Abscondus_40 Start: 17135, Stop: 17593, Start Num: 29
Candidate Starts for Abscondus_40:
(Start: 29 @17135 has 20 MA's),

Gene: AcciDwight_269 Start: 119645, Stop: 119103, Start Num: 11
Candidate Starts for AcciDwight_269:
(Start: 11 @119645 has 10 MA's), (Start: 32 @119522 has 1 MA's), (55, 119444), (80, 119342), (92, 119291), (94, 119288), (128, 119159),

Gene: AdaS_75 Start: 42758, Stop: 43237, Start Num: 53
Candidate Starts for AdaS_75:
(Start: 53 @42758 has 2 MA's), (92, 42941), (111, 43004), (132, 43109), (146, 43160),

Gene: Adolin_42 Start: 29874, Stop: 30347, Start Num: 33
Candidate Starts for Adolin_42:
(3, 29637), (Start: 33 @29874 has 2 MA's), (74, 30018), (92, 30111), (122, 30219),

Gene: Alyssamiracle_26 Start: 15136, Stop: 15546, Start Num: 54
Candidate Starts for Alyssamiracle_26:

(45, 15115), (Start: 54 @15136 has 4 MA's), (58, 15160), (103, 15343), (117, 15403), (127, 15460), (129, 15469), (133, 15490), (138, 15511),

Gene: Anedea_217 Start: 106294, Stop: 106719, Start Num: 27
Candidate Starts for Anedea_217:
(Start: 27 @106294 has 7 MA's), (122, 106618), (124, 106627), (129, 106654), (130, 106666), (133, 106675), (142, 106711), (143, 106714),

Gene: Aphelion_41 Start: 17404, Stop: 17862, Start Num: 29
Candidate Starts for Aphelion_41:
(Start: 29 @17404 has 20 MA's),

Gene: Bachita_43 Start: 17837, Stop: 18295, Start Num: 29
Candidate Starts for Bachita_43:
(Start: 29 @17837 has 20 MA's),

Gene: Bantam_23 Start: 14778, Stop: 15239, Start Num: 29
Candidate Starts for Bantam_23:
(14, 14694), (Start: 29 @14778 has 20 MA's), (114, 15099), (134, 15198),

Gene: Bavilard_3 Start: 956, Stop: 1408, Start Num: 34
Candidate Starts for Bavilard_3:
(6, 791), (18, 872), (34, 956), (60, 1043), (83, 1151), (84, 1154), (116, 1277), (118, 1283), (120, 1310), (122, 1319),

Gene: Bromden_104 Start: 63270, Stop: 63686, Start Num: 42
Candidate Starts for Bromden_104:
(Start: 42 @63270 has 6 MA's), (127, 63612),

Gene: Bromden_61 Start: 43963, Stop: 44400, Start Num: 38
Candidate Starts for Bromden_61:
(36, 43960), (Start: 38 @43963 has 1 MA's), (48, 43996), (62, 44038), (75, 44083), (90, 44158), (92, 44164), (132, 44353),

Gene: BrutonGaster_29 Start: 14029, Stop: 14475, Start Num: 29
Candidate Starts for BrutonGaster_29:
(Start: 29 @14029 has 20 MA's), (130, 14428),

Gene: Cardigan_40 Start: 19035, Stop: 19475, Start Num: 33
Candidate Starts for Cardigan_40:
(Start: 29 @19023 has 20 MA's), (Start: 33 @19035 has 2 MA's), (59, 19110), (82, 19218),

Gene: CeilingFan_266 Start: 120156, Stop: 119614, Start Num: 11
Candidate Starts for CeilingFan_266:
(Start: 11 @120156 has 10 MA's), (Start: 32 @120033 has 1 MA's), (55, 119955), (80, 119853), (92, 119802), (94, 119799), (128, 119670), (138, 119625),

Gene: Clown_83 Start: 53992, Stop: 54378, Start Num: 46
Candidate Starts for Clown_83:
(4, 53719), (5, 53737), (23, 53896), (Start: 24 @53917 has 1 MA's), (26, 53926), (Start: 32 @53947 has 1 MA's), (Start: 33 @53956 has 2 MA's), (Start: 46 @53992 has 1 MA's), (78, 54142), (97, 54202), (120, 54277),

Gene: ClubL_41 Start: 17326, Stop: 17784, Start Num: 29
Candidate Starts for ClubL_41:
(Start: 29 @17326 has 20 MA's),

Gene: Crewmate_2 Start: 546, Stop: 995, Start Num: 33
Candidate Starts for Crewmate_2:
(Start: 33 @546 has 2 MA's), (120, 846),

Gene: Cucurbita_43 Start: 18696, Stop: 19154, Start Num: 29
Candidate Starts for Cucurbita_43:
(Start: 29 @18696 has 20 MA's),

Gene: Culver_41 Start: 17135, Stop: 17593, Start Num: 29
Candidate Starts for Culver_41:
(Start: 29 @17135 has 20 MA's),

Gene: DatBoi_24 Start: 15695, Stop: 16030, Start Num: 65
Candidate Starts for DatBoi_24:
(Start: 29 @15569 has 20 MA's), (Start: 65 @15695 has 1 MA's), (114, 15890), (134, 15989),

Gene: Davielle_179 Start: 95501, Stop: 95932, Start Num: 27
Candidate Starts for Davielle_179:
(Start: 27 @95501 has 7 MA's), (Start: 53 @95579 has 2 MA's), (87, 95705), (90, 95723), (121, 95834), (128, 95876),

Gene: DeluluLabubu_257 Start: 121131, Stop: 121556, Start Num: 41
Candidate Starts for DeluluLabubu_257:
(Start: 41 @121131 has 3 MA's), (76, 121248), (93, 121329), (97, 121338), (119, 121437), (122, 121455), (129, 121491), (141, 121545),

Gene: DeluluLabubu_105 Start: 68261, Stop: 68743, Start Num: 19
Candidate Starts for DeluluLabubu_105:
(Start: 19 @68261 has 1 MA's), (22, 68276), (79, 68492), (91, 68537), (100, 68570), (128, 68690), (133, 68714),

Gene: Dusty_40 Start: 17135, Stop: 17593, Start Num: 29
Candidate Starts for Dusty_40:
(Start: 29 @17135 has 20 MA's),

Gene: EGole_223 Start: 113552, Stop: 114001, Start Num: 21
Candidate Starts for EGole_223:
(Start: 21 @113552 has 1 MA's), (Start: 27 @113582 has 7 MA's), (87, 113783), (92, 113807), (108, 113852), (128, 113936), (138, 113981),

Gene: Engineer_42 Start: 17352, Stop: 17810, Start Num: 29
Candidate Starts for Engineer_42:
(Start: 29 @17352 has 20 MA's),

Gene: Erasmago_158 Start: 90400, Stop: 90855, Start Num: 27
Candidate Starts for Erasmago_158:
(Start: 27 @90400 has 7 MA's), (85, 90589),

Gene: Finemlucis_71 Start: 49120, Stop: 49566, Start Num: 39

Candidate Starts for Finemlucis_71:
(31, 49093), (35, 49108), (Start: 39 @49120 has 2 MA's), (95, 49336), (99, 49354), (123, 49468), (136, 49531), (139, 49543),

Gene: Forrest_254 Start: 120939, Stop: 121364, Start Num: 41
Candidate Starts for Forrest_254:
(Start: 41 @120939 has 3 MA's), (76, 121056), (93, 121137), (97, 121146), (122, 121263), (129, 121299), (141, 121353),

Gene: Gabriela_68 Start: 47246, Stop: 47692, Start Num: 39
Candidate Starts for Gabriela_68:
(31, 47219), (35, 47234), (Start: 39 @47246 has 2 MA's), (95, 47462), (99, 47480), (123, 47594), (136, 47657), (139, 47669),

Gene: Gaia_140 Start: 75742, Stop: 76296, Start Num: 17
Candidate Starts for Gaia_140:
(7, 75664), (8, 75679), (9, 75685), (12, 75700), (Start: 17 @75742 has 1 MA's), (52, 75880), (87, 76036), (92, 76060), (127, 76222), (136, 76261),

Gene: Gardann_101 Start: 61924, Stop: 62331, Start Num: 42
Candidate Starts for Gardann_101:
(Start: 42 @61924 has 6 MA's), (73, 62029), (76, 62038), (107, 62173), (127, 62266), (133, 62296),

Gene: Geeche_40 Start: 17226, Stop: 17684, Start Num: 29
Candidate Starts for Geeche_40:
(Start: 29 @17226 has 20 MA's),

Gene: Genamy16_26 Start: 15136, Stop: 15546, Start Num: 54
Candidate Starts for Genamy16_26:
(45, 15115), (Start: 54 @15136 has 4 MA's), (58, 15160), (103, 15343), (117, 15403), (127, 15460), (129, 15469), (133, 15490), (138, 15511),

Gene: Gibbi_270 Start: 119649, Stop: 119107, Start Num: 11
Candidate Starts for Gibbi_270:
(Start: 11 @119649 has 10 MA's), (Start: 32 @119526 has 1 MA's), (55, 119448), (80, 119346), (92, 119295), (94, 119292), (128, 119163),

Gene: Jada_255 Start: 120179, Stop: 120604, Start Num: 41
Candidate Starts for Jada_255:
(Start: 41 @120179 has 3 MA's), (76, 120296), (93, 120377), (97, 120386), (122, 120503), (129, 120539), (141, 120593),

Gene: Jflix2_25 Start: 25439, Stop: 25867, Start Num: 50
Candidate Starts for Jflix2_25:
(1, 24707), (2, 24917), (Start: 50 @25439 has 2 MA's), (84, 25574), (97, 25619), (125, 25760), (132, 25793),

Gene: JimJam_268 Start: 121085, Stop: 120543, Start Num: 11
Candidate Starts for JimJam_268:
(Start: 11 @121085 has 10 MA's), (Start: 32 @120962 has 1 MA's), (55, 120884), (80, 120782), (92, 120731), (94, 120728), (128, 120599), (138, 120554),

Gene: JonJames_40 Start: 21238, Stop: 21690, Start Num: 29

Candidate Starts for JonJames_40:
(Start: 29 @21238 has 20 MA's), (Start: 33 @21250 has 2 MA's), (59, 21325), (82, 21433),

Gene: Kahlid_101 Start: 61842, Stop: 62249, Start Num: 42
Candidate Starts for Kahlid_101:
(Start: 42 @61842 has 6 MA's), (73, 61947), (76, 61956), (107, 62091), (127, 62184), (133, 62214),

Gene: Karp_197 Start: 102737, Stop: 102318, Start Num: 27
Candidate Starts for Karp_197:
(Start: 25 @102743 has 2 MA's), (Start: 27 @102737 has 7 MA's), (63, 102620), (87, 102542), (102, 102488), (122, 102416),

Gene: Kaylissa_41 Start: 29646, Stop: 30089, Start Num: 30
Candidate Starts for Kaylissa_41:
(15, 29565), (Start: 30 @29646 has 1 MA's), (87, 29868),

Gene: KentuckyRacer_267 Start: 121000, Stop: 120458, Start Num: 11
Candidate Starts for KentuckyRacer_267:
(Start: 11 @121000 has 10 MA's), (Start: 32 @120877 has 1 MA's), (55, 120799), (80, 120697), (92, 120646), (94, 120643), (128, 120514), (138, 120469),

Gene: Kumotta_5 Start: 4506, Stop: 5042, Start Num: 13
Candidate Starts for Kumotta_5:
(Start: 13 @4506 has 1 MA's), (Start: 20 @4554 has 1 MA's), (28, 4599), (92, 4821), (121, 4944), (133, 5010),

Gene: LazerLemon_75 Start: 51475, Stop: 51948, Start Num: 20
Candidate Starts for LazerLemon_75:
(Start: 20 @51475 has 1 MA's), (Start: 24 @51496 has 1 MA's), (47, 51565), (72, 51634), (92, 51721), (104, 51760), (109, 51793), (121, 51844), (130, 51901),

Gene: LeoJr_143 Start: 97416, Stop: 97838, Start Num: 27
Candidate Starts for LeoJr_143:
(Start: 27 @97416 has 7 MA's), (94, 97650), (138, 97824),

Gene: Lozinak_41 Start: 17407, Stop: 17865, Start Num: 29
Candidate Starts for Lozinak_41:
(Start: 29 @17407 has 20 MA's),

Gene: Madraxi_29 Start: 27630, Stop: 28058, Start Num: 50
Candidate Starts for Madraxi_29:
(Start: 50 @27630 has 2 MA's), (84, 27765), (92, 27801), (97, 27810), (98, 27822), (125, 27951), (132, 27984),

Gene: Manuel_3 Start: 3413, Stop: 3811, Start Num: 51
Candidate Starts for Manuel_3:
(40, 3383), (Start: 51 @3413 has 1 MA's), (92, 3590),

Gene: MargaretKali_1 Start: 50, Stop: 577, Start Num: 19
Candidate Starts for MargaretKali_1:
(Start: 19 @50 has 1 MA's), (43, 152), (Start: 57 @206 has 1 MA's), (61, 221), (88, 341), (92, 359), (133, 542), (140, 569),

Gene: MaryV_93 Start: 56140, Stop: 56508, Start Num: 56
Candidate Starts for MaryV_93:
(Start: 56 @56140 has 2 MA's), (92, 56281), (121, 56398), (127, 56434), (131, 56458), (133, 56464), (138, 56485),

Gene: MidnightRain_85 Start: 46712, Stop: 47188, Start Num: 53
Candidate Starts for MidnightRain_85:
(Start: 53 @46712 has 2 MA's), (92, 46892), (111, 46955), (128, 47039), (138, 47084), (144, 47105), (146, 47111),

Gene: Milomuff_3 Start: 670, Stop: 1044, Start Num: 52
Candidate Starts for Milomuff_3:
(52, 670), (Start: 57 @694 has 1 MA's), (87, 826), (111, 910), (126, 979),

Gene: Miskis_39 Start: 17170, Stop: 17628, Start Num: 29
Candidate Starts for Miskis_39:
(Start: 29 @17170 has 20 MA's),

Gene: Mollymur_24 Start: 15771, Stop: 16076, Start Num: 71
Candidate Starts for Mollymur_24:
(Start: 29 @15615 has 20 MA's), (Start: 71 @15771 has 1 MA's), (92, 15873), (105, 15915),

Gene: MurphyJoseph_76 Start: 43888, Stop: 44364, Start Num: 53
Candidate Starts for MurphyJoseph_76:
(37, 43840), (Start: 53 @43888 has 2 MA's), (92, 44068), (111, 44131), (128, 44215), (138, 44260), (144, 44281), (146, 44287),

Gene: Nicholasp3_102 Start: 61924, Stop: 62331, Start Num: 42
Candidate Starts for Nicholasp3_102:
(Start: 42 @61924 has 6 MA's), (73, 62029), (76, 62038), (107, 62173), (127, 62266), (133, 62296),

Gene: Norvs_42 Start: 17409, Stop: 17867, Start Num: 29
Candidate Starts for Norvs_42:
(Start: 29 @17409 has 20 MA's),

Gene: Nova53_188 Start: 99250, Stop: 99705, Start Num: 27
Candidate Starts for Nova53_188:
(22, 99220), (Start: 27 @99250 has 7 MA's), (92, 99475), (138, 99667),

Gene: Omega_199 Start: 97671, Stop: 98360, Start Num: 10
Candidate Starts for Omega_199:
(Start: 10 @97671 has 1 MA's), (Start: 66 @97917 has 1 MA's), (97, 98058), (127, 98217), (129, 98226),

Gene: OneUp_35 Start: 15247, Stop: 15564, Start Num: 66
Candidate Starts for OneUp_35:
(Start: 29 @15118 has 20 MA's), (Start: 66 @15247 has 1 MA's), (130, 15517),

Gene: Persimmon_179 Start: 94749, Stop: 95180, Start Num: 27
Candidate Starts for Persimmon_179:
(Start: 27 @94749 has 7 MA's), (Start: 53 @94827 has 2 MA's), (87, 94953), (90, 94971), (121, 95082), (128, 95124),

Gene: Phabba_53 Start: 19044, Stop: 18553, Start Num: 32
Candidate Starts for Phabba_53:
(Start: 32 @19044 has 1 MA's), (Start: 33 @19035 has 2 MA's), (Start: 54 @18975 has 4 MA's), (63, 18933), (94, 18795), (97, 18789), (112, 18732), (129, 18651), (139, 18606),

Gene: PhinkBoden_41 Start: 17790, Stop: 18248, Start Num: 29
Candidate Starts for PhinkBoden_41:
(Start: 29 @17790 has 20 MA's),

Gene: Predator_10 Start: 6815, Stop: 7189, Start Num: 57
Candidate Starts for Predator_10:
(Start: 57 @6815 has 1 MA's), (81, 6929), (89, 6965), (94, 6980), (110, 7025), (118, 7046), (125, 7103), (136, 7145), (138, 7157), (141, 7169), (143, 7175),

Gene: PumpkinSpice_263 Start: 119441, Stop: 118899, Start Num: 11
Candidate Starts for PumpkinSpice_263:
(Start: 11 @119441 has 10 MA's), (Start: 32 @119318 has 1 MA's), (58, 119231), (80, 119138), (92, 119087), (94, 119084), (128, 118955),

Gene: Quby_89 Start: 56408, Stop: 56815, Start Num: 46
Candidate Starts for Quby_89:
(Start: 46 @56408 has 1 MA's), (67, 56486), (91, 56591), (92, 56594), (98, 56615), (113, 56660), (115, 56666), (129, 56741), (145, 56807),

Gene: RazorC_24 Start: 15136, Stop: 15528, Start Num: 54
Candidate Starts for RazorC_24:
(45, 15115), (Start: 54 @15136 has 4 MA's), (58, 15160), (67, 15202), (72, 15220), (128, 15463), (133, 15487),

Gene: ReginaGlobina_142 Start: 97638, Stop: 98060, Start Num: 27
Candidate Starts for ReginaGlobina_142:
(Start: 27 @97638 has 7 MA's), (94, 97872), (138, 98046),

Gene: Rikishi_261 Start: 119623, Stop: 119081, Start Num: 11
Candidate Starts for Rikishi_261:
(Start: 11 @119623 has 10 MA's), (Start: 32 @119500 has 1 MA's), (55, 119422), (80, 119320), (92, 119269), (94, 119266), (128, 119137),

Gene: Rowa_60 Start: 40584, Stop: 40913, Start Num: 70
Candidate Starts for Rowa_60:
(64, 40563), (Start: 70 @40584 has 1 MA's), (91, 40692), (92, 40695), (101, 40731), (126, 40848), (137, 40890),

Gene: Rumpelstiltskin_98 Start: 61717, Stop: 62124, Start Num: 42
Candidate Starts for Rumpelstiltskin_98:
(Start: 42 @61717 has 6 MA's), (73, 61822), (76, 61831), (107, 61966), (127, 62059), (133, 62089),

Gene: SFuller_27 Start: 26032, Stop: 26460, Start Num: 50
Candidate Starts for SFuller_27:
(Start: 50 @26032 has 2 MA's), (84, 26167), (92, 26203), (97, 26212), (98, 26224), (125, 26353), (132, 26386),

Gene: SJReid_133 Start: 86260, Stop: 86706, Start Num: 25

Candidate Starts for SJReid_133:
(Start: 25 @86260 has 2 MA's), (94, 86530), (98, 86548),

Gene: SeresaTree_235 Start: 114238, Stop: 114606, Start Num: 48
Candidate Starts for SeresaTree_235:
(48, 114238), (68, 114316), (82, 114370), (84, 114376), (91, 114415), (92, 114418), (128, 114550), (136, 114583),

Gene: Shawty_32 Start: 26307, Stop: 26723, Start Num: 44
Candidate Starts for Shawty_32:
(Start: 44 @26307 has 2 MA's), (69, 26400), (77, 26439), (128, 26661), (135, 26688),

Gene: Smoothie_42 Start: 17407, Stop: 17865, Start Num: 29
Candidate Starts for Smoothie_42:
(Start: 29 @17407 has 20 MA's),

Gene: Solea_3 Start: 670, Stop: 1044, Start Num: 52
Candidate Starts for Solea_3:
(52, 670), (Start: 57 @694 has 1 MA's), (87, 826), (111, 910), (126, 979),

Gene: SpeedDemon_240 Start: 15094, Stop: 15555, Start Num: 29
Candidate Starts for SpeedDemon_240:
(Start: 29 @15094 has 20 MA's), (116, 15418), (122, 15454), (134, 15514),

Gene: Spelly_265 Start: 118353, Stop: 117811, Start Num: 11
Candidate Starts for Spelly_265:
(Start: 11 @118353 has 10 MA's), (Start: 32 @118230 has 1 MA's), (55, 118152), (80, 118050), (92, 117999), (94, 117996), (128, 117867), (138, 117822),

Gene: Spilled_268 Start: 120017, Stop: 119475, Start Num: 11
Candidate Starts for Spilled_268:
(Start: 11 @120017 has 10 MA's), (Start: 32 @119894 has 1 MA's), (55, 119816), (80, 119714), (92, 119663), (94, 119660), (128, 119531), (138, 119486),

Gene: Starbow_257 Start: 118397, Stop: 117855, Start Num: 11
Candidate Starts for Starbow_257:
(Start: 11 @118397 has 10 MA's), (Start: 32 @118274 has 1 MA's), (55, 118196), (80, 118094), (92, 118043), (94, 118040), (128, 117911), (138, 117866),

Gene: TomSawyer_265 Start: 121328, Stop: 120786, Start Num: 11
Candidate Starts for TomSawyer_265:
(Start: 11 @121328 has 10 MA's), (55, 121127), (80, 121025), (92, 120974), (94, 120971), (128, 120842), (138, 120797),

Gene: Toniann_41 Start: 17352, Stop: 17810, Start Num: 29
Candidate Starts for Toniann_41:
(Start: 29 @17352 has 20 MA's),

Gene: TunaTartare_254 Start: 124119, Stop: 124544, Start Num: 41
Candidate Starts for TunaTartare_254:
(Start: 41 @124119 has 3 MA's), (76, 124236), (93, 124317), (97, 124326), (122, 124443), (125, 124464), (129, 124479), (141, 124533),

Gene: Underpass_94 Start: 56960, Stop: 57367, Start Num: 42
Candidate Starts for Underpass_94:
(Start: 42 @56960 has 6 MA's), (73, 57065), (76, 57074), (107, 57209), (127, 57302), (133, 57332),

Gene: Vetrix_100 Start: 61960, Stop: 62376, Start Num: 44
Candidate Starts for Vetrix_100:
(Start: 42 @61957 has 6 MA's), (Start: 44 @61960 has 2 MA's), (49, 61978), (127, 62299),

Gene: Westy_204 Start: 103797, Stop: 103372, Start Num: 25
Candidate Starts for Westy_204:
(Start: 25 @103797 has 2 MA's), (Start: 27 @103791 has 7 MA's), (63, 103674), (87, 103596), (102, 103542), (122, 103470),

Gene: WhereRU_178 Start: 95501, Stop: 95932, Start Num: 27
Candidate Starts for WhereRU_178:
(Start: 27 @95501 has 7 MA's), (Start: 53 @95579 has 2 MA's), (87, 95705), (90, 95723), (121, 95834), (128, 95876),

Gene: Wildcat_93 Start: 56150, Stop: 56518, Start Num: 56
Candidate Starts for Wildcat_93:
(Start: 56 @56150 has 2 MA's), (92, 56291), (121, 56408), (127, 56444), (131, 56468), (133, 56474), (138, 56495),

Gene: WilliamBoone_41 Start: 16716, Stop: 17174, Start Num: 29
Candidate Starts for WilliamBoone_41:
(Start: 29 @16716 has 20 MA's),

Gene: Wipeout_252 Start: 120280, Stop: 119738, Start Num: 11
Candidate Starts for Wipeout_252:
(Start: 11 @120280 has 10 MA's), (Start: 32 @120157 has 1 MA's), (58, 120070), (80, 119977), (92, 119926), (94, 119923), (128, 119794),

Gene: Yang_45 Start: 32671, Stop: 33198, Start Num: 16
Candidate Starts for Yang_45:
(Start: 16 @32671 has 1 MA's), (86, 32941), (96, 32983), (123, 33112), (136, 33175),

Gene: Yvonnetastic_38 Start: 18787, Stop: 19239, Start Num: 29
Candidate Starts for Yvonnetastic_38:
(Start: 29 @18787 has 20 MA's), (Start: 33 @18799 has 2 MA's), (59, 18874), (82, 18982),

Gene: Zany_25 Start: 17287, Stop: 17679, Start Num: 54
Candidate Starts for Zany_25:
(45, 17266), (Start: 54 @17287 has 4 MA's), (58, 17311), (67, 17353), (72, 17371), (128, 17614), (133, 17638),

Gene: Zooman_139 Start: 88579, Stop: 89034, Start Num: 27
Candidate Starts for Zooman_139:
(Start: 27 @88579 has 7 MA's), (85, 88768), (87, 88783), (106, 88858),