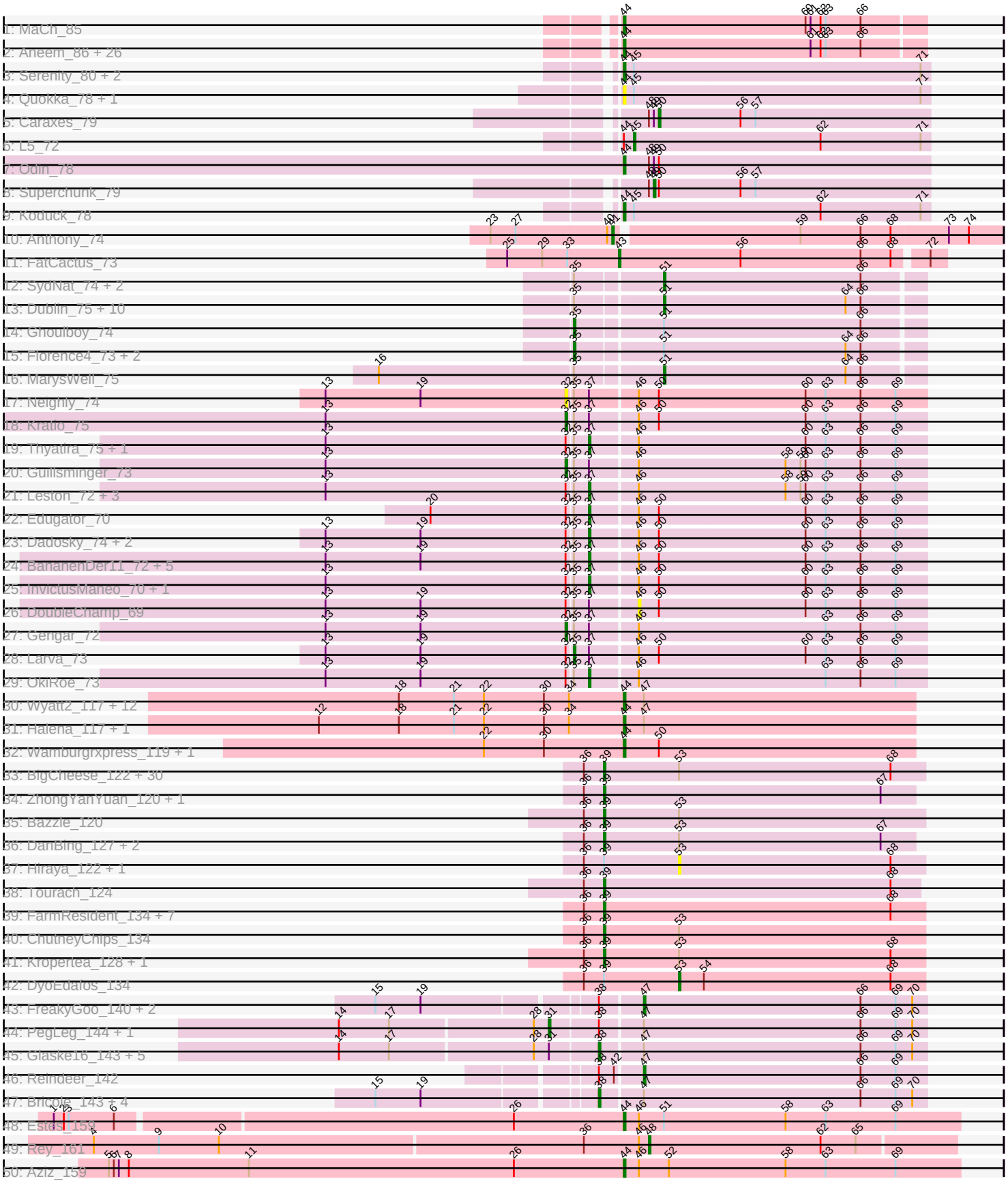
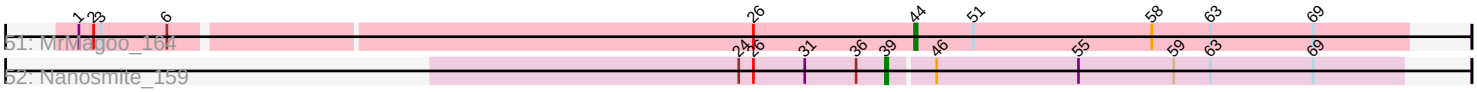
Pham 345426


1: MaCh_85
2: Aneem_86 + 26
3: Serenity_80 + 2
4: Quokka_78 + 1
5: Caraxes_79
6: L5_72
7: Odin_78
8: Superchunk_79
9: Koduck_78
10: Anthony_74
11: FatCactus_73
12: SyuNat_74 + 2
13: Dublin_75 + 10
14: Ghouiboy_74
15: Florence4_73 + 2
16: MarysWell_75
17: Neighly_74
18: Kratio_75
19: Thyatira_75 + 1
20: Gullsminger_73
21: Leston_72 + 3
22: Edugator_70
23: Dadosky_74 + 2
24: BananenDer11_72 + 5
25: InvictusManeo_70 + 1
26: DoubleChamp_69
27: Gengar_72
28: Larva_73
29: OkiRoe_73
30: Wyatt2_117 + 12
31: Halena_117 + 1
32: Wamburgrxpress_119 + 1
33: BigCheese_122 + 30
34: ZhongYanYuan_120 + 1
35: Bazzle_120
36: DanBing_127 + 2
37: Hiraya_122 + 1
38: Tourach_124
39: FarmResident_134 + 7
40: ChutneyChips_134
41: Kropertea_128 + 1
42: DyoEdafos_134
43: FreakyGoo_140 + 2
44: PegLeg_144 + 1
45: Glaske16_143 + 5
46: Reindeer_142
47: Britgia_143 + 4
48: Estes_153
49: Rey_161
50: Aziz_159

Pham 345426


1
3
6
26
44
51
58
63
69
51: MrMagoo_164
24
26
31
36
39
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59
63
69
52: Nanosmite_159

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 345426 Report

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

Pham number 345426 has 175 members, 26 are drafts.

Phages represented in each track:
• Track 1 : MaCh_85
• Track 2 : Aneem_86, Jabith_84, TinyTimmy_83, Munch_85, Bud_80, Joselito_84, Sham4_81, Kimba_82, Mabel_85, Lucivia_86, Bachome_83, Salz_80, Insomnia_84, Ebony_85, Mulciber_83, Petersenfast_81, Et2Brutus_84, Orange_85, Gilberta_82, Bowtie_82, Hutc2_81, Flaverint_86, Fibonacci_84, Saskia_83, Snape_85, Timothy_85, Wolpertinger_83
• Track 3 : Serenity_80, Jsquared_80, TipsytheTRex_76
• Track 4 : Quokka_78, Bradman_79
• Track 5 : Caraxes_79
• Track 6 : L5_72
• Track 7 : Odin_78
• Track 8 : Superchunk_79
• Track 9 : Koduck_78
• Track 10 : Anthony_74
• Track 11 : FatCactus_73
• Track 12 : SydNat_74, Zolita_73, Bluefalcon_70
• Track 13 : Dublin_75, Coog_72, Bonamassa_75, Theia_74, Midas2_72, Swirley_75, Florence1_72, HuhtaEnerson15_73, Cuco_74, LittleCherry_74, Twigg_75
• Track 14 : Ghoulboy_74
• Track 15 : Florence4_73, Micasa_75, Tarynearal_74
• Track 16 : MarysWell_75
• Track 17 : Neighly_74
• Track 18 : Kratio_75
• Track 19 : Thyatira_75, Waterfoul_74
• Track 20 : Guillsminger_73
• Track 21 : Leston_72, Feyre_75, Miryou_76, Paola_72
• Track 22 : Edugator_70
• Track 23 : Dadosky_74, Psycho_72, AlleyCat_74
• Track 24 : BananenDer11_72, Collard_70, ViviJ_78, SoSeph_73, LilDirt_71, Heftyboy_73
• Track 25 : InvictusManeo_70, Agent47_72
• Track 26 : DoubleChamp_69
• Track 27 : Gengar_72
• Track 28 : Larva_73
• Track 29 : OkiRoe_73
• Track 30 : Wyatt2_117, Appletree2_116, Acquire49_117, Rose5_118, Zaria_121, UPIE_116, LeBron_116, OhShagHennessy_109, AvadaKedavra_117, Tyson_118,

Calm_124, CicholasNage_111, Poochiewood_116
• Track 31 : Halena_117, MAckerman_118
• Track 32 : Wamburgrxpress_119, JoeDirt_120
• Track 33 : BigCheese_122, Underpass_115, Kahlid_122, Crossroads_125, Soap141_123, LilDestine_119, DrSeegs_121, ChengKai98_121, Netyap_121, Gardann_122, Wigglewiggle_123, Loadrie_124, Breezona_123, Miley16_123, Wilder_123, MkaliMitinis3_125, Winky_123, Gabriela_122, Itos_123, Lynnae_123, Finemlucis_121, Sarshaun_124, BobsGarage_122, GuuelaD_120, Lewan_125, Rossetti_122, Faith1_121, Nicholasp3_123, Zakai_125, Vetrix_122, Molivier_114
• Track 34 : ZhongYanYuan_120, Baoshan_122
• Track 35 : Bazzle_120
• Track 36 : DanBing_127, DHan_125, Claus_121
• Track 37 : Hiraya_122, SoJulia_125
• Track 38 : Tourach_124
• Track 39 : FarmResident_134, Quby_133, Chaser_131, PYPDinur_133, Douzhi_131, Sheng711_134, BrainDrainer_131, Douge_133
• Track 40 : ChutneyChips_134
• Track 41 : Kropertea_128, Archie_121
• Track 42 : DyoEdafos_134
• Track 43 : FreakyGoo_140, KleverKiS_144, SlimJimmy_139
• Track 44 : PegLeg_144, Bongo_139
• Track 45 : Glaske16_143, Dulcita_141, Diminimus_141, Izel_141, Skinny_147, LilhomieP_141
• Track 46 : Reindeer_142
• Track 47 : Bricole_143, TyDawg_135, TpudiCK_142, Auspice_142, IPhane7_139
• Track 48 : Estes_159
• Track 49 : Rey_161
• Track 50 : Aziz_159
• Track 51 : MrMagoo_164
• Track 52 : Nanosmite_159

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

The start number called the most often in the published annotations is 44, it was called in 52 of the 149 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acquire49_117, Aneem_86, Appletree2_116, AvadaKedavra_117, Aziz_159, Bachome_83, Bowtie_82, Bradman_79, Bud_80, Calm_124, CicholasNage_111, Ebony_85, Estes_159, Et2Brutus_84, Fibonacci_84, Flaverint_86, Gilberta_82, Halena_117, Hutc2_81, Insomnia_84, Jabith_84, JoeDirt_120, Joselito_84, Jsquared_80, Kimba_82, Koduck_78, LeBron_116, Lucivia_86, MAckerman_118, MaCh_85, Mabel_85, MrMagoo_164, Mulciber_83, Munch_85, Odin_78, OhShagHennessy_109, Orange_85, Petersenfast_81, Poochiewood_116, Quokka_78, Rose5_118, Salz_80, Saskia_83, Serenity_80, Sham4_81, Snape_85, Timothy_85, TinyTimmy_83, TipsytheTRex_76, Tyson_118, UPIE_116, Wamburgrxpress_119, Wolpertinger_83, Wyatt2_117, Zaria_121,

Genes that have the "Most Annotated" start but do not call it:
• L5_72,

Genes that do not have the "Most Annotated" start:
• Agent47_72, AlleyCat_74, Anthony_74, Archie_121, Auspice_142, BananenDer11_72, Baoshan_122, Bazzle_120, BigCheese_122, Bluefalcon_70, BobsGarage_122, Bonamassa_75, Bongo_139, BrainDrainer_131, Breezona_123, Bricole_143, Caraxes_79, Chaser_131, ChengKai98_121, ChutneyChips_134, Claus_121, Collard_70, Coog_72, Crossroads_125, Cuco_74, DHan_125, Dadosky_74, DanBing_127, Diminimus_141, DoubleChamp_69, Douge_133, Douzhi_131, DrSeegs_121, Dublin_75, Dulcita_141, DyoEdafos_134, Edugator_70, Faith1_121, FarmResident_134, FatCactus_73, Feyre_75, Finemlucis_121, Florence1_72, Florence4_73, FreakyGoo_140, Gabriela_122, Gardann_122, Gengar_72, Ghoulboy_74, Glaske16_143, Guillsminger_73, GuuelaD_120, Heftyboy_73, Hiraya_122, HuhtaEnerson15_73, IPhane7_139, InvictusManeo_70, Itos_123, Izel_141, Kahlid_122, KleverKiS_144, Kratio_75, Kropertea_128, Larva_73, Leston_72, Lewan_125, LilDestine_119, LilDirt_71, LilhomieP_141, LittleCherry_74, Loadrie_124, Lynnae_123, MarysWell_75, Micasa_75, Midas2_72, Miley16_123, Miryou_76, MkaliMitinis3_125, Molivier_114, Nanosmite_159, Neighly_74, Netyap_121, Nicholasp3_123, OkiRoe_73, PYPDinur_133, Paola_72, PegLeg_144, Psycho_72, Quby_133, Reindeer_142, Rey_161, Rossetti_122, Sarshaun_124, Sheng711_134, Skinny_147, SlimJimmy_139, SoJulia_125, SoSeph_73, Soap141_123, Superchunk_79, Swirley_75, SydNat_74, Tarynearal_74, Theia_74, Thyatira_75, Tourach_124, TpudiCK_142, Twigg_75, TyDawg_135, Underpass_115, Vetrix_122, ViviJ_78, Waterfoul_74, Wigglewiggle_123, Wilder_123, Winky_123, Zakai_125, ZhongYanYuan_120, Zolita_73,

Summary by start number:

Start 31:
• Found in 9 of 175 (5.1%) of genes in pham
• Manual Annotations of this start: 2 of 149
• Called 22.2% of time when present
• Phage (with cluster) where this start called: Bongo_139 (M1), PegLeg_144 (M1),

Start 32:
• Found in 25 of 175 (14.3%) of genes in pham
• Manual Annotations of this start: 3 of 149
• Called 16.0% of time when present
• Phage (with cluster) where this start called: Gengar_72 (K5), Guillsminger_73 (K5), Kratio_75 (K5), Neighly_74 (K3),

Start 35:
• Found in 44 of 175 (25.1%) of genes in pham
• Manual Annotations of this start: 4 of 149
• Called 11.4% of time when present
• Phage (with cluster) where this start called: Florence4_73 (A5), Ghoulboy_74 (A5), Larva_73 (K5), Micasa_75 (A5), Tarynearal_74 (A5),

Start 37:
• Found in 25 of 175 (14.3%) of genes in pham
• Manual Annotations of this start: 19 of 149
• Called 76.0% of time when present
• Phage (with cluster) where this start called: Agent47_72 (K5), AlleyCat_74 (K5), BananenDer11_72 (K5), Collard_70 (K5), Dadosky_74 (K5), Edugator_70 (K5),

Feyre_75 (K5), Heftyboy_73 (K5), InvictusManeo_70 (K5), Leston_72 (K5), LilDirt_71 (K5), Miryou_76 (K5), OkiRoe_73 (K5), Paola_72 (K5), Psycho_72 (K5), SoSeph_73 (K5), Thyatira_75 (K5), ViviJ_78 (K5), Waterfoul_74 (K5),

Start 38:
• Found in 17 of 175 (9.7%) of genes in pham
• Manual Annotations of this start: 10 of 149
• Called 64.7% of time when present
• Phage (with cluster) where this start called: Auspice_142 (M1), Bricole_143 (M1), Diminimus_141 (M1), Dulcita_141 (M1), Glaske16_143 (M1), IPhane7_139 (M1), Izel_141 (M1), LilhomieP_141 (M1), Skinny_147 (M1), TpudiCK_142 (M1), TyDawg_135 (M1),

Start 39:
• Found in 53 of 175 (30.3%) of genes in pham
• Manual Annotations of this start: 35 of 149
• Called 94.3% of time when present
• Phage (with cluster) where this start called: Archie_121 (L2), Baoshan_122 (L2), Bazzle_120 (L2), BigCheese_122 (L2), BobsGarage_122 (L2), BrainDrainer_131 (L4), Breezona_123 (L2), Chaser_131 (L4), ChengKai98_121 (L2), ChutneyChips_134 (L4), Claus_121 (L2), Crossroads_125 (L2), DHan_125 (L2), DanBing_127 (L2), Douge_133 (L4), Douzhi_131 (L4), DrSeegs_121 (L2), Faith1_121 (L2), FarmResident_134 (L4), Finemlucis_121 (L2), Gabriela_122 (L2), Gardann_122 (L2), GuuelaD_120 (L2), Itos_123 (L2), Kahlid_122 (L2), Kropertea_128 (L4), Lewan_125 (L2), LilDestine_119 (L2), Loadrie_124 (L2), Lynnae_123 (L2), Miley16_123 (L2), MkaliMitinis3_125 (L2), Molivier_114 (L2), Nanosmite_159 (M3), Netyap_121 (L2), Nicholasp3_123 (L2), PYPDinur_133 (L4), Quby_133 (L4), Rossetti_122 (L2), Sarshaun_124 (L2), Sheng711_134 (L4), Soap141_123 (L2), Tourach_124 (L2), Underpass_115 (L2), Vetrix_122 (L2), Wigglewiggle_123 (L2), Wilder_123 (L2), Winky_123 (L2), Zakai_125 (L2), ZhongYanYuan_120 (L2),

Start 41:
• Found in 1 of 175 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 149
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Anthony_74 (A20),

Start 43:
• Found in 1 of 175 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 149
• Called 100.0% of time when present
• Phage (with cluster) where this start called: FatCactus_73 (A20),

Start 44:
• Found in 56 of 175 (32.0%) of genes in pham
• Manual Annotations of this start: 52 of 149
• Called 98.2% of time when present
• Phage (with cluster) where this start called: Acquire49_117 (L1), Aneem_86 (A11), Appletree2_116 (L1), AvadaKedavra_117 (L1), Aziz_159 (M2), Bachome_83 (A11), Bowtie_82 (A11), Bradman_79 (A2), Bud_80 (A11), Calm_124 (L1), CicholasNage_111 (L1), Ebony_85 (A11), Estes_159 (M2), Et2Brutus_84 (A11), Fibonacci_84 (A11), Flaverint_86 (A11), Gilberta_82 (A11), Halena_117 (L1),

Hutc2_81 (A11), Insomnia_84 (A11), Jabith_84 (A11), JoeDirt_120 (L1), Joselito_84 (A11), Jsquared_80 (A2), Kimba_82 (A11), Koduck_78 (A2), LeBron_116 (L1), Lucivia_86 (A11), MAckerman_118 (L1), MaCh_85 (A11), Mabel_85 (A11), MrMagoo_164 (M2), Mulciber_83 (A11), Munch_85 (A11), Odin_78 (A2), OhShagHennessy_109 (L1), Orange_85 (A11), Petersenfast_81 (A11), Poochiewood_116 (L1), Quokka_78 (A2), Rose5_118 (L1), Salz_80 (A11), Saskia_83 (A11), Serenity_80 (A2), Sham4_81 (A11), Snape_85 (A11), Timothy_85 (A11), TinyTimmy_83 (A11), TipsytheTRex_76 (A2), Tyson_118 (L1), UPIE_116 (L1), Wamburgrxpress_119 (L1), Wolpertinger_83 (A11), Wyatt2_117 (L1), Zaria_121 (L1),

Start 45:
• Found in 7 of 175 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 149
• Called 14.3% of time when present
• Phage (with cluster) where this start called: L5_72 (A2),

Start 46:
• Found in 29 of 175 (16.6%) of genes in pham
• No Manual Annotations of this start.
• Called 3.4% of time when present
• Phage (with cluster) where this start called: DoubleChamp_69 (K5),

Start 47:
• Found in 32 of 175 (18.3%) of genes in pham
• Manual Annotations of this start: 3 of 149
• Called 12.5% of time when present
• Phage (with cluster) where this start called: FreakyGoo_140 (M1), KleverKiS_144 (M1), Reindeer_142 (M1), SlimJimmy_139 (M1),

Start 48:
• Found in 4 of 175 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 149
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Rey_161 (M2),

Start 49:
• Found in 3 of 175 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 149
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Superchunk_79 (A2),

Start 50:
• Found in 21 of 175 (12.0%) of genes in pham
• Manual Annotations of this start: 1 of 149
• Called 4.8% of time when present
• Phage (with cluster) where this start called: Caraxes_79 (A2),

Start 51:
• Found in 21 of 175 (12.0%) of genes in pham
• Manual Annotations of this start: 14 of 149
• Called 71.4% of time when present
• Phage (with cluster) where this start called: Bluefalcon_70 (A5), Bonamassa_75 (A5), Coog_72 (A5), Cuco_74 (A5), Dublin_75 (A5), Florence1_72 (A5),

HuhtaEnerson15_73 (A5), LittleCherry_74 (A5), MarysWell_75 (A5), Midas2_72 (A5), Swirley_75 (A5), SydNat_74 (A5), Theia_74 (A5), Twigg_75 (A5), Zolita_73 (A5),

Start 53:
• Found in 41 of 175 (23.4%) of genes in pham
• Manual Annotations of this start: 1 of 149
• Called 7.3% of time when present
• Phage (with cluster) where this start called: DyoEdafos_134 (L4), Hiraya_122 (L2), SoJulia_125 (L2),

Summary by clusters:

There are 12 clusters represented in this pham: A20, M1, A11, M3, L1, K3, L4, A2, L2, K5, M2, A5,

Info for manual annotations of cluster A11:
•Start number 44 was manually annotated 28 times for cluster A11.

Info for manual annotations of cluster A2:
•Start number 44 was manually annotated 5 times for cluster A2.
•Start number 45 was manually annotated 1 time for cluster A2.
•Start number 49 was manually annotated 1 time for cluster A2.
•Start number 50 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:
•Start number 41 was manually annotated 1 time for cluster A20.
•Start number 43 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A5:
•Start number 35 was manually annotated 3 times for cluster A5.
•Start number 51 was manually annotated 14 times for cluster A5.

Info for manual annotations of cluster K5:
•Start number 32 was manually annotated 3 times for cluster K5.
•Start number 35 was manually annotated 1 time for cluster K5.
•Start number 37 was manually annotated 19 times for cluster K5.

Info for manual annotations of cluster L1:
•Start number 44 was manually annotated 16 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 39 was manually annotated 30 times for cluster L2.

Info for manual annotations of cluster L4:
•Start number 39 was manually annotated 4 times for cluster L4.
•Start number 53 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster M1:
•Start number 31 was manually annotated 2 times for cluster M1.
•Start number 38 was manually annotated 10 times for cluster M1.
•Start number 47 was manually annotated 3 times for cluster M1.

Info for manual annotations of cluster M2:
•Start number 44 was manually annotated 3 times for cluster M2.
•Start number 48 was manually annotated 1 time for cluster M2.

Info for manual annotations of cluster M3:
•Start number 39 was manually annotated 1 time for cluster M3.

Gene Information:

Gene: Acquire49_117 Start: 64194, Stop: 64021, Start Num: 44
Candidate Starts for Acquire49_117:
(18, 64329), (21, 64296), (22, 64278), (30, 64242), (34, 64227), (Start: 44 @64194 has 52 MA's), (Start: 47 @64182 has 3 MA's),

Gene: Agent47_72 Start: 48966, Stop: 49163, Start Num: 37
Candidate Starts for Agent47_72:
(13, 48810), (Start: 32 @48954 has 3 MA's), (Start: 35 @48957 has 4 MA's), (Start: 37 @48966 has 19 MA's), (46, 48993), (Start: 50 @49005 has 1 MA's), (60, 49092), (63, 49104), (66, 49125), (69, 49146),

Gene: AlleyCat_74 Start: 49309, Stop: 49506, Start Num: 37
Candidate Starts for AlleyCat_74:
(13, 49153), (19, 49210), (Start: 32 @49297 has 3 MA's), (Start: 35 @49300 has 4 MA's), (Start: 37 @49309 has 19 MA's), (46, 49336), (Start: 50 @49348 has 1 MA's), (60, 49435), (63, 49447), (66, 49468), (69, 49489),

Gene: Aneem_86 Start: 47024, Stop: 46848, Start Num: 44
Candidate Starts for Aneem_86:
(Start: 44 @47024 has 52 MA's), (61, 46913), (62, 46907), (63, 46904), (66, 46883),

Gene: Anthony_74 Start: 45287, Stop: 45063, Start Num: 41
Candidate Starts for Anthony_74:
(23, 45359), (27, 45344), (40, 45290), (Start: 41 @45287 has 1 MA's), (59, 45182), (66, 45146), (68, 45128), (73, 45095), (74, 45083),

Gene: Appletree2_116 Start: 64235, Stop: 64062, Start Num: 44
Candidate Starts for Appletree2_116:
(18, 64370), (21, 64337), (22, 64319), (30, 64283), (34, 64268), (Start: 44 @64235 has 52 MA's), (Start: 47 @64223 has 3 MA's),

Gene: Archie_121 Start: 66124, Stop: 65933, Start Num: 39
Candidate Starts for Archie_121:
(36, 66136), (Start: 39 @66124 has 35 MA's), (Start: 53 @66079 has 1 MA's), (68, 65953),

Gene: Auspice_142 Start: 72970, Stop: 72779, Start Num: 38
Candidate Starts for Auspice_142:
(15, 73093), (19, 73066), (Start: 38 @72970 has 10 MA's), (Start: 47 @72946 has 3 MA's), (66, 72817), (69, 72796), (70, 72787),

Gene: AvadaKedavra_117 Start: 64308, Stop: 64135, Start Num: 44
Candidate Starts for AvadaKedavra_117:

(18, 64443), (21, 64410), (22, 64392), (30, 64356), (34, 64341), (Start: 44 @64308 has 52 MA's), (Start: 47 @64296 has 3 MA's),

Gene: Aziz_159 Start: 76111, Stop: 75911, Start Num: 44
Candidate Starts for Aziz_159:
(5, 76420), (6, 76417), (7, 76414), (8, 76408), (11, 76336), (26, 76177), (Start: 44 @76111 has 52 MA's), (46, 76102), (52, 76084), (58, 76015), (63, 75991), (69, 75949),

Gene: Bachome_83 Start: 45904, Stop: 45728, Start Num: 44
Candidate Starts for Bachome_83:
(Start: 44 @45904 has 52 MA's), (61, 45793), (62, 45787), (63, 45784), (66, 45763),

Gene: BananenDer11_72 Start: 48927, Stop: 49124, Start Num: 37
Candidate Starts for BananenDer11_72:
(13, 48771), (19, 48828), (Start: 32 @48915 has 3 MA's), (Start: 35 @48918 has 4 MA's), (Start: 37 @48927 has 19 MA's), (46, 48954), (Start: 50 @48966 has 1 MA's), (60, 49053), (63, 49065), (66, 49086), (69, 49107),

Gene: Baoshan_122 Start: 66333, Stop: 66148, Start Num: 39
Candidate Starts for Baoshan_122:
(36, 66345), (Start: 39 @66333 has 35 MA's), (67, 66168),

Gene: Bazzle_120 Start: 66711, Stop: 66520, Start Num: 39
Candidate Starts for Bazzle_120:
(36, 66723), (Start: 39 @66711 has 35 MA's), (Start: 53 @66666 has 1 MA's),

Gene: BigCheese_122 Start: 66602, Stop: 66411, Start Num: 39
Candidate Starts for BigCheese_122:
(36, 66614), (Start: 39 @66602 has 35 MA's), (Start: 53 @66557 has 1 MA's), (68, 66431),

Gene: Bluefalcon_70 Start: 44916, Stop: 44764, Start Num: 51
Candidate Starts for Bluefalcon_70:
(Start: 35 @44964 has 4 MA's), (Start: 51 @44916 has 14 MA's), (66, 44799),

Gene: BobsGarage_122 Start: 66602, Stop: 66411, Start Num: 39
Candidate Starts for BobsGarage_122:
(36, 66614), (Start: 39 @66602 has 35 MA's), (Start: 53 @66557 has 1 MA's), (68, 66431),

Gene: Bonamassa_75 Start: 45303, Stop: 45151, Start Num: 51
Candidate Starts for Bonamassa_75:
(Start: 35 @45351 has 4 MA's), (Start: 51 @45303 has 14 MA's), (64, 45195), (66, 45186),

Gene: Bongo_139 Start: 72617, Stop: 72399, Start Num: 31
Candidate Starts for Bongo_139:
(14, 72740), (17, 72710), (28, 72626), (Start: 31 @72617 has 2 MA's), (Start: 38 @72590 has 10 MA's), (Start: 47 @72566 has 3 MA's), (66, 72437), (69, 72416), (70, 72407),

Gene: Bowtie_82 Start: 45631, Stop: 45455, Start Num: 44
Candidate Starts for Bowtie_82:
(Start: 44 @45631 has 52 MA's), (61, 45520), (62, 45514), (63, 45511), (66, 45490),

Gene: Bradman_79 Start: 45301, Stop: 45119, Start Num: 44
Candidate Starts for Bradman_79:

(Start: 44 @45301 has 52 MA's), (Start: 45 @45295 has 1 MA's), (71, 45124),

Gene: BrainDrainer_131 Start: 67883, Stop: 67692, Start Num: 39
Candidate Starts for BrainDrainer_131:
(36, 67895), (Start: 39 @67883 has 35 MA's), (68, 67712),

Gene: Breezona_123 Start: 66937, Stop: 66746, Start Num: 39
Candidate Starts for Breezona_123:
(36, 66949), (Start: 39 @66937 has 35 MA's), (Start: 53 @66892 has 1 MA's), (68, 66766),

Gene: Bricole_143 Start: 72735, Stop: 72544, Start Num: 38
Candidate Starts for Bricole_143:
(15, 72858), (19, 72831), (Start: 38 @72735 has 10 MA's), (Start: 47 @72711 has 3 MA's), (66, 72582), (69, 72561), (70, 72552),

Gene: Bud_80 Start: 45461, Stop: 45285, Start Num: 44
Candidate Starts for Bud_80:
(Start: 44 @45461 has 52 MA's), (61, 45350), (62, 45344), (63, 45341), (66, 45320),

Gene: Calm_124 Start: 65409, Stop: 65236, Start Num: 44
Candidate Starts for Calm_124:
(18, 65544), (21, 65511), (22, 65493), (30, 65457), (34, 65442), (Start: 44 @65409 has 52 MA's), (Start: 47 @65397 has 3 MA's),

Gene: Caraxes_79 Start: 45560, Stop: 45399, Start Num: 50
Candidate Starts for Caraxes_79:
(Start: 48 @45566 has 1 MA's), (Start: 49 @45563 has 1 MA's), (Start: 50 @45560 has 1 MA's), (56, 45512), (57, 45503),

Gene: Chaser_131 Start: 67928, Stop: 67737, Start Num: 39
Candidate Starts for Chaser_131:
(36, 67940), (Start: 39 @67928 has 35 MA's), (68, 67757),

Gene: ChengKai98_121 Start: 66010, Stop: 65819, Start Num: 39
Candidate Starts for ChengKai98_121:
(36, 66022), (Start: 39 @66010 has 35 MA's), (Start: 53 @65965 has 1 MA's), (68, 65839),

Gene: ChutneyChips_134 Start: 67996, Stop: 67805, Start Num: 39
Candidate Starts for ChutneyChips_134:
(36, 68008), (Start: 39 @67996 has 35 MA's), (Start: 53 @67951 has 1 MA's),

Gene: CicholasNage_111 Start: 64539, Stop: 64366, Start Num: 44
Candidate Starts for CicholasNage_111:
(18, 64674), (21, 64641), (22, 64623), (30, 64587), (34, 64572), (Start: 44 @64539 has 52 MA's), (Start: 47 @64527 has 3 MA's),

Gene: Claus_121 Start: 66246, Stop: 66061, Start Num: 39
Candidate Starts for Claus_121:
(36, 66258), (Start: 39 @66246 has 35 MA's), (Start: 53 @66201 has 1 MA's), (67, 66081),

Gene: Collard_70 Start: 48927, Stop: 49124, Start Num: 37
Candidate Starts for Collard_70:

(13, 48771), (19, 48828), (Start: 32 @48915 has 3 MA's), (Start: 35 @48918 has 4 MA's), (Start: 37 @48927 has 19 MA's), (46, 48954), (Start: 50 @48966 has 1 MA's), (60, 49053), (63, 49065), (66, 49086), (69, 49107),

Gene: Coog_72 Start: 45118, Stop: 44966, Start Num: 51
Candidate Starts for Coog_72:
(Start: 35 @45166 has 4 MA's), (Start: 51 @45118 has 14 MA's), (64, 45010), (66, 45001),

Gene: Crossroads_125 Start: 66699, Stop: 66508, Start Num: 39
Candidate Starts for Crossroads_125:
(36, 66711), (Start: 39 @66699 has 35 MA's), (Start: 53 @66654 has 1 MA's), (68, 66528),

Gene: Cuco_74 Start: 44978, Stop: 44826, Start Num: 51
Candidate Starts for Cuco_74:
(Start: 35 @45026 has 4 MA's), (Start: 51 @44978 has 14 MA's), (64, 44870), (66, 44861),

Gene: DHan_125 Start: 66912, Stop: 66727, Start Num: 39
Candidate Starts for DHan_125:
(36, 66924), (Start: 39 @66912 has 35 MA's), (Start: 53 @66867 has 1 MA's), (67, 66747),

Gene: Dadosky_74 Start: 49311, Stop: 49508, Start Num: 37
Candidate Starts for Dadosky_74:
(13, 49155), (19, 49212), (Start: 32 @49299 has 3 MA's), (Start: 35 @49302 has 4 MA's), (Start: 37 @49311 has 19 MA's), (46, 49338), (Start: 50 @49350 has 1 MA's), (60, 49437), (63, 49449), (66, 49470), (69, 49491),

Gene: DanBing_127 Start: 67279, Stop: 67094, Start Num: 39
Candidate Starts for DanBing_127:
(36, 67291), (Start: 39 @67279 has 35 MA's), (Start: 53 @67234 has 1 MA's), (67, 67114),

Gene: Diminimus_141 Start: 72406, Stop: 72215, Start Num: 38
Candidate Starts for Diminimus_141:
(14, 72556), (17, 72526), (28, 72442), (Start: 31 @72433 has 2 MA's), (Start: 38 @72406 has 10 MA's), (Start: 47 @72382 has 3 MA's), (66, 72253), (69, 72232), (70, 72223),

Gene: DoubleChamp_69 Start: 48954, Stop: 49124, Start Num: 46
Candidate Starts for DoubleChamp_69:
(13, 48771), (19, 48828), (Start: 32 @48915 has 3 MA's), (Start: 35 @48918 has 4 MA's), (Start: 37 @48927 has 19 MA's), (46, 48954), (Start: 50 @48966 has 1 MA's), (60, 49053), (63, 49065), (66, 49086), (69, 49107),

Gene: Douge_133 Start: 68622, Stop: 68431, Start Num: 39
Candidate Starts for Douge_133:
(36, 68634), (Start: 39 @68622 has 35 MA's), (68, 68451),

Gene: Douzhi_131 Start: 68055, Stop: 67864, Start Num: 39
Candidate Starts for Douzhi_131:
(36, 68067), (Start: 39 @68055 has 35 MA's), (68, 67884),

Gene: DrSeegs_121 Start: 66937, Stop: 66746, Start Num: 39
Candidate Starts for DrSeegs_121:
(36, 66949), (Start: 39 @66937 has 35 MA's), (Start: 53 @66892 has 1 MA's), (68, 66766),

Gene: Dublin_75 Start: 45250, Stop: 45098, Start Num: 51
Candidate Starts for Dublin_75:
(Start: 35 @45298 has 4 MA's), (Start: 51 @45250 has 14 MA's), (64, 45142), (66, 45133),

Gene: Dulcita_141 Start: 72407, Stop: 72216, Start Num: 38
Candidate Starts for Dulcita_141:
(14, 72557), (17, 72527), (28, 72443), (Start: 31 @72434 has 2 MA's), (Start: 38 @72407 has 10 MA's), (Start: 47 @72383 has 3 MA's), (66, 72254), (69, 72233), (70, 72224),

Gene: DyoEdafos_134 Start: 67841, Stop: 67695, Start Num: 53
Candidate Starts for DyoEdafos_134:
(36, 67898), (Start: 39 @67886 has 35 MA's), (Start: 53 @67841 has 1 MA's), (54, 67826), (68, 67715),

Gene: Ebony_85 Start: 46595, Stop: 46419, Start Num: 44
Candidate Starts for Ebony_85:
(Start: 44 @46595 has 52 MA's), (61, 46484), (62, 46478), (63, 46475), (66, 46454),

Gene: Edugator_70 Start: 50481, Stop: 50678, Start Num: 37
Candidate Starts for Edugator_70:
(20, 50388), (Start: 32 @50469 has 3 MA's), (Start: 35 @50472 has 4 MA's), (Start: 37 @50481 has 19 MA's), (46, 50508), (Start: 50 @50520 has 1 MA's), (60, 50607), (63, 50619), (66, 50640), (69, 50661),

Gene: Estes_159 Start: 76117, Stop: 75917, Start Num: 44
Candidate Starts for Estes_159:
(1, 76450), (2, 76444), (3, 76441), (6, 76414), (26, 76183), (Start: 44 @76117 has 52 MA's), (46, 76108), (Start: 51 @76093 has 14 MA's), (58, 76021), (63, 75997), (69, 75955),

Gene: Et2Brutus_84 Start: 46558, Stop: 46382, Start Num: 44
Candidate Starts for Et2Brutus_84:
(Start: 44 @46558 has 52 MA's), (61, 46447), (62, 46441), (63, 46438), (66, 46417),

Gene: Faith1_121 Start: 66245, Stop: 66054, Start Num: 39
Candidate Starts for Faith1_121:
(36, 66257), (Start: 39 @66245 has 35 MA's), (Start: 53 @66200 has 1 MA's), (68, 66074),

Gene: FarmResident_134 Start: 67754, Stop: 67563, Start Num: 39
Candidate Starts for FarmResident_134:
(36, 67766), (Start: 39 @67754 has 35 MA's), (68, 67583),

Gene: FatCactus_73 Start: 44746, Stop: 44558, Start Num: 43
Candidate Starts for FatCactus_73:
(25, 44812), (29, 44791), (33, 44776), (Start: 43 @44746 has 1 MA's), (56, 44674), (66, 44602), (68, 44584), (72, 44566),

Gene: Feyre_75 Start: 52727, Stop: 52924, Start Num: 37
Candidate Starts for Feyre_75:
(13, 52571), (Start: 32 @52715 has 3 MA's), (Start: 35 @52718 has 4 MA's), (Start: 37 @52727 has 19 MA's), (46, 52754), (58, 52841), (59, 52850), (60, 52853), (63, 52865), (66, 52886), (69, 52907),

Gene: Fibonacci_84 Start: 46564, Stop: 46388, Start Num: 44
Candidate Starts for Fibonacci_84:
(Start: 44 @46564 has 52 MA's), (61, 46453), (62, 46447), (63, 46444), (66, 46423),

Gene: Finemlucis_121 Start: 67273, Stop: 67082, Start Num: 39
Candidate Starts for Finemlucis_121:
(36, 67285), (Start: 39 @67273 has 35 MA's), (Start: 53 @67228 has 1 MA's), (68, 67102),

Gene: Flaverint_86 Start: 47022, Stop: 46846, Start Num: 44
Candidate Starts for Flaverint_86:
(Start: 44 @47022 has 52 MA's), (61, 46911), (62, 46905), (63, 46902), (66, 46881),

Gene: Florence1_72 Start: 44813, Stop: 44661, Start Num: 51
Candidate Starts for Florence1_72:
(Start: 35 @44861 has 4 MA's), (Start: 51 @44813 has 14 MA's), (64, 44705), (66, 44696),

Gene: Florence4_73 Start: 44861, Stop: 44661, Start Num: 35
Candidate Starts for Florence4_73:
(Start: 35 @44861 has 4 MA's), (Start: 51 @44813 has 14 MA's), (64, 44705), (66, 44696),

Gene: FreakyGoo_140 Start: 72863, Stop: 72696, Start Num: 47
Candidate Starts for FreakyGoo_140:
(15, 73010), (19, 72983), (Start: 38 @72887 has 10 MA's), (Start: 47 @72863 has 3 MA's), (66, 72734), (69, 72713), (70, 72704),

Gene: Gabriela_122 Start: 65490, Stop: 65299, Start Num: 39
Candidate Starts for Gabriela_122:
(36, 65502), (Start: 39 @65490 has 35 MA's), (Start: 53 @65445 has 1 MA's), (68, 65319),

Gene: Gardann_122 Start: 66167, Stop: 65976, Start Num: 39
Candidate Starts for Gardann_122:
(36, 66179), (Start: 39 @66167 has 35 MA's), (Start: 53 @66122 has 1 MA's), (68, 65996),

Gene: Gengar_72 Start: 50725, Stop: 50934, Start Num: 32
Candidate Starts for Gengar_72:
(13, 50581), (19, 50638), (Start: 32 @50725 has 3 MA's), (Start: 35 @50728 has 4 MA's), (Start: 37 @50737 has 19 MA's), (46, 50764), (63, 50875), (66, 50896), (69, 50917),

Gene: Ghoulboy_74 Start: 45239, Stop: 45039, Start Num: 35
Candidate Starts for Ghoulboy_74:
(Start: 35 @45239 has 4 MA's), (Start: 51 @45191 has 14 MA's), (66, 45074),

Gene: Gilberta_82 Start: 45898, Stop: 45722, Start Num: 44
Candidate Starts for Gilberta_82:
(Start: 44 @45898 has 52 MA's), (61, 45787), (62, 45781), (63, 45778), (66, 45757),

Gene: Glaske16_143 Start: 73525, Stop: 73334, Start Num: 38
Candidate Starts for Glaske16_143:
(14, 73675), (17, 73645), (28, 73561), (Start: 31 @73552 has 2 MA's), (Start: 38 @73525 has 10 MA's), (Start: 47 @73501 has 3 MA's), (66, 73372), (69, 73351), (70, 73342),

Gene: Guillsminger_73 Start: 50646, Stop: 50855, Start Num: 32
Candidate Starts for Guillsminger_73:
(13, 50502), (Start: 32 @50646 has 3 MA's), (Start: 35 @50649 has 4 MA's), (Start: 37 @50658 has 19 MA's), (46, 50685), (58, 50772), (59, 50781), (60, 50784), (63, 50796), (66, 50817), (69, 50838),

Gene: GuuelaD_120 Start: 66427, Stop: 66236, Start Num: 39

Candidate Starts for GuuelaD_120:
(36, 66439), (Start: 39 @66427 has 35 MA's), (Start: 53 @66382 has 1 MA's), (68, 66256),

Gene: Halena_117 Start: 64182, Stop: 64009, Start Num: 44
Candidate Starts for Halena_117:
(12, 64365), (18, 64317), (21, 64284), (22, 64266), (30, 64230), (34, 64215), (Start: 44 @64182 has 52 MA's), (Start: 47 @64170 has 3 MA's),

Gene: Heftyboy_73 Start: 51006, Stop: 51203, Start Num: 37
Candidate Starts for Heftyboy_73:
(13, 50850), (19, 50907), (Start: 32 @50994 has 3 MA's), (Start: 35 @50997 has 4 MA's), (Start: 37 @51006 has 19 MA's), (46, 51033), (Start: 50 @51045 has 1 MA's), (60, 51132), (63, 51144), (66, 51165), (69, 51186),

Gene: Hiraya_122 Start: 66557, Stop: 66411, Start Num: 53
Candidate Starts for Hiraya_122:
(36, 66614), (Start: 39 @66602 has 35 MA's), (Start: 53 @66557 has 1 MA's), (68, 66431),

Gene: HuhtaEnerson15_73 Start: 44956, Stop: 44804, Start Num: 51
Candidate Starts for HuhtaEnerson15_73:
(Start: 35 @45004 has 4 MA's), (Start: 51 @44956 has 14 MA's), (64, 44848), (66, 44839),

Gene: Hutc2_81 Start: 45448, Stop: 45272, Start Num: 44
Candidate Starts for Hutc2_81:
(Start: 44 @45448 has 52 MA's), (61, 45337), (62, 45331), (63, 45328), (66, 45307),

Gene: IPhane7_139 Start: 72586, Stop: 72395, Start Num: 38
Candidate Starts for IPhane7_139:
(15, 72709), (19, 72682), (Start: 38 @72586 has 10 MA's), (Start: 47 @72562 has 3 MA's), (66, 72433), (69, 72412), (70, 72403),

Gene: Insomnia_84 Start: 46742, Stop: 46566, Start Num: 44
Candidate Starts for Insomnia_84:
(Start: 44 @46742 has 52 MA's), (61, 46631), (62, 46625), (63, 46622), (66, 46601),

Gene: InvictusManeo_70 Start: 48970, Stop: 49167, Start Num: 37
Candidate Starts for InvictusManeo_70:
(13, 48814), (Start: 32 @48958 has 3 MA's), (Start: 35 @48961 has 4 MA's), (Start: 37 @48970 has 19 MA's), (46, 48997), (Start: 50 @49009 has 1 MA's), (60, 49096), (63, 49108), (66, 49129), (69, 49150),

Gene: Itos_123 Start: 65151, Stop: 64960, Start Num: 39
Candidate Starts for Itos_123:
(36, 65163), (Start: 39 @65151 has 35 MA's), (Start: 53 @65106 has 1 MA's), (68, 64980),

Gene: Izel_141 Start: 72406, Stop: 72215, Start Num: 38
Candidate Starts for Izel_141:
(14, 72556), (17, 72526), (28, 72442), (Start: 31 @72433 has 2 MA's), (Start: 38 @72406 has 10 MA's), (Start: 47 @72382 has 3 MA's), (66, 72253), (69, 72232), (70, 72223),

Gene: Jabith_84 Start: 46756, Stop: 46580, Start Num: 44
Candidate Starts for Jabith_84:
(Start: 44 @46756 has 52 MA's), (61, 46645), (62, 46639), (63, 46636), (66, 46615),

Gene: JoeDirt_120 Start: 65537, Stop: 65364, Start Num: 44
Candidate Starts for JoeDirt_120:
(22, 65621), (30, 65585), (Start: 44 @65537 has 52 MA's), (Start: 50 @65516 has 1 MA's),

Gene: Joselito_84 Start: 46776, Stop: 46600, Start Num: 44
Candidate Starts for Joselito_84:
(Start: 44 @46776 has 52 MA's), (61, 46665), (62, 46659), (63, 46656), (66, 46635),

Gene: Jsquared_80 Start: 45434, Stop: 45252, Start Num: 44
Candidate Starts for Jsquared_80:
(Start: 44 @45434 has 52 MA's), (Start: 45 @45428 has 1 MA's), (71, 45257),

Gene: Kahlid_122 Start: 66452, Stop: 66261, Start Num: 39
Candidate Starts for Kahlid_122:
(36, 66464), (Start: 39 @66452 has 35 MA's), (Start: 53 @66407 has 1 MA's), (68, 66281),

Gene: Kimba_82 Start: 46079, Stop: 45903, Start Num: 44
Candidate Starts for Kimba_82:
(Start: 44 @46079 has 52 MA's), (61, 45968), (62, 45962), (63, 45959), (66, 45938),

Gene: KleverKiS_144 Start: 73619, Stop: 73452, Start Num: 47
Candidate Starts for KleverKiS_144:
(15, 73766), (19, 73739), (Start: 38 @73643 has 10 MA's), (Start: 47 @73619 has 3 MA's), (66, 73490), (69, 73469), (70, 73460),

Gene: Koduck_78 Start: 45209, Stop: 45027, Start Num: 44
Candidate Starts for Koduck_78:
(Start: 44 @45209 has 52 MA's), (Start: 45 @45203 has 1 MA's), (62, 45092), (71, 45032),

Gene: Kratio_75 Start: 50516, Stop: 50725, Start Num: 32
Candidate Starts for Kratio_75:
(13, 50372), (Start: 32 @50516 has 3 MA's), (Start: 35 @50519 has 4 MA's), (Start: 37 @50528 has 19 MA's), (46, 50555), (Start: 50 @50567 has 1 MA's), (60, 50654), (63, 50666), (66, 50687), (69, 50708),

Gene: Kropertea_128 Start: 67518, Stop: 67327, Start Num: 39
Candidate Starts for Kropertea_128:
(36, 67530), (Start: 39 @67518 has 35 MA's), (Start: 53 @67473 has 1 MA's), (68, 67347),

Gene: L5_72 Start: 45356, Stop: 45180, Start Num: 45
Candidate Starts for L5_72:
(Start: 44 @45362 has 52 MA's), (Start: 45 @45356 has 1 MA's), (62, 45245), (71, 45185),

Gene: Larva_73 Start: 50174, Stop: 50380, Start Num: 35
Candidate Starts for Larva_73:
(13, 50027), (19, 50084), (Start: 32 @50171 has 3 MA's), (Start: 35 @50174 has 4 MA's), (Start: 37 @50183 has 19 MA's), (46, 50210), (Start: 50 @50222 has 1 MA's), (60, 50309), (63, 50321), (66, 50342), (69, 50363),

Gene: LeBron_116 Start: 63798, Stop: 63625, Start Num: 44
Candidate Starts for LeBron_116:
(18, 63933), (21, 63900), (22, 63882), (30, 63846), (34, 63831), (Start: 44 @63798 has 52 MA's), (Start: 47 @63786 has 3 MA's),

Gene: Leston_72 Start: 50775, Stop: 50972, Start Num: 37
Candidate Starts for Leston_72:
(13, 50619), (Start: 32 @50763 has 3 MA's), (Start: 35 @50766 has 4 MA's), (Start: 37 @50775 has 19 MA's), (46, 50802), (58, 50889), (59, 50898), (60, 50901), (63, 50913), (66, 50934), (69, 50955),

Gene: Lewan_125 Start: 67228, Stop: 67037, Start Num: 39
Candidate Starts for Lewan_125:
(36, 67240), (Start: 39 @67228 has 35 MA's), (Start: 53 @67183 has 1 MA's), (68, 67057),

Gene: LilDestine_119 Start: 65622, Stop: 65431, Start Num: 39
Candidate Starts for LilDestine_119:
(36, 65634), (Start: 39 @65622 has 35 MA's), (Start: 53 @65577 has 1 MA's), (68, 65451),

Gene: LilDirt_71 Start: 48728, Stop: 48925, Start Num: 37
Candidate Starts for LilDirt_71:
(13, 48572), (19, 48629), (Start: 32 @48716 has 3 MA's), (Start: 35 @48719 has 4 MA's), (Start: 37 @48728 has 19 MA's), (46, 48755), (Start: 50 @48767 has 1 MA's), (60, 48854), (63, 48866), (66, 48887), (69, 48908),

Gene: LilhomieP_141 Start: 73436, Stop: 73245, Start Num: 38
Candidate Starts for LilhomieP_141:
(14, 73586), (17, 73556), (28, 73472), (Start: 31 @73463 has 2 MA's), (Start: 38 @73436 has 10 MA's), (Start: 47 @73412 has 3 MA's), (66, 73283), (69, 73262), (70, 73253),

Gene: LittleCherry_74 Start: 44826, Stop: 44674, Start Num: 51
Candidate Starts for LittleCherry_74:
(Start: 35 @44874 has 4 MA's), (Start: 51 @44826 has 14 MA's), (64, 44718), (66, 44709),

Gene: Loadrie_124 Start: 67260, Stop: 67069, Start Num: 39
Candidate Starts for Loadrie_124:
(36, 67272), (Start: 39 @67260 has 35 MA's), (Start: 53 @67215 has 1 MA's), (68, 67089),

Gene: Lucivia_86 Start: 47055, Stop: 46879, Start Num: 44
Candidate Starts for Lucivia_86:
(Start: 44 @47055 has 52 MA's), (61, 46944), (62, 46938), (63, 46935), (66, 46914),

Gene: Lynnae_123 Start: 66265, Stop: 66074, Start Num: 39
Candidate Starts for Lynnae_123:
(36, 66277), (Start: 39 @66265 has 35 MA's), (Start: 53 @66220 has 1 MA's), (68, 66094),

Gene: MAckerman_118 Start: 64175, Stop: 64002, Start Num: 44
Candidate Starts for MAckerman_118:
(12, 64358), (18, 64310), (21, 64277), (22, 64259), (30, 64223), (34, 64208), (Start: 44 @64175 has 52 MA's), (Start: 47 @64163 has 3 MA's),

Gene: MaCh_85 Start: 47019, Stop: 46843, Start Num: 44
Candidate Starts for MaCh_85:
(Start: 44 @47019 has 52 MA's), (60, 46911), (61, 46908), (62, 46902), (63, 46899), (66, 46878),

Gene: Mabel_85 Start: 47020, Stop: 46844, Start Num: 44
Candidate Starts for Mabel_85:
(Start: 44 @47020 has 52 MA's), (61, 46909), (62, 46903), (63, 46900), (66, 46879),

Gene: MarysWell_75 Start: 45493, Stop: 45341, Start Num: 51
Candidate Starts for MarysWell_75:
(16, 45655), (Start: 35 @45541 has 4 MA's), (Start: 51 @45493 has 14 MA's), (64, 45385), (66, 45376),

Gene: Micasa_75 Start: 45263, Stop: 45063, Start Num: 35
Candidate Starts for Micasa_75:
(Start: 35 @45263 has 4 MA's), (Start: 51 @45215 has 14 MA's), (64, 45107), (66, 45098),

Gene: Midas2_72 Start: 45118, Stop: 44966, Start Num: 51
Candidate Starts for Midas2_72:
(Start: 35 @45166 has 4 MA's), (Start: 51 @45118 has 14 MA's), (64, 45010), (66, 45001),

Gene: Miley16_123 Start: 66937, Stop: 66746, Start Num: 39
Candidate Starts for Miley16_123:
(36, 66949), (Start: 39 @66937 has 35 MA's), (Start: 53 @66892 has 1 MA's), (68, 66766),

Gene: Miryou_76 Start: 53394, Stop: 53591, Start Num: 37
Candidate Starts for Miryou_76:
(13, 53238), (Start: 32 @53382 has 3 MA's), (Start: 35 @53385 has 4 MA's), (Start: 37 @53394 has 19 MA's), (46, 53421), (58, 53508), (59, 53517), (60, 53520), (63, 53532), (66, 53553), (69, 53574),

Gene: MkaliMitinis3_125 Start: 66564, Stop: 66373, Start Num: 39
Candidate Starts for MkaliMitinis3_125:
(36, 66576), (Start: 39 @66564 has 35 MA's), (Start: 53 @66519 has 1 MA's), (68, 66393),

Gene: Molivier_114 Start: 61408, Stop: 61217, Start Num: 39
Candidate Starts for Molivier_114:
(36, 61420), (Start: 39 @61408 has 35 MA's), (Start: 53 @61363 has 1 MA's), (68, 61237),

Gene: MrMagoo_164 Start: 76795, Stop: 76595, Start Num: 44
Candidate Starts for MrMagoo_164:
(1, 77128), (2, 77122), (3, 77119), (6, 77092), (26, 76861), (Start: 44 @76795 has 52 MA's), (Start: 51 @76771 has 14 MA's), (58, 76699), (63, 76675), (69, 76633),

Gene: Mulciber_83 Start: 46561, Stop: 46385, Start Num: 44
Candidate Starts for Mulciber_83:
(Start: 44 @46561 has 52 MA's), (61, 46450), (62, 46444), (63, 46441), (66, 46420),

Gene: Munch_85 Start: 47024, Stop: 46848, Start Num: 44
Candidate Starts for Munch_85:
(Start: 44 @47024 has 52 MA's), (61, 46913), (62, 46907), (63, 46904), (66, 46883),

Gene: Nanosmite_159 Start: 75860, Stop: 75654, Start Num: 39
Candidate Starts for Nanosmite_159:
(24, 75920), (26, 75914), (Start: 31 @75893 has 2 MA's), (36, 75872), (Start: 39 @75860 has 35 MA's), (46, 75842), (55, 75785), (59, 75746), (63, 75731), (69, 75689),

Gene: Neighly_74 Start: 50170, Stop: 50379, Start Num: 32
Candidate Starts for Neighly_74:
(13, 50026), (19, 50083), (Start: 32 @50170 has 3 MA's), (Start: 35 @50173 has 4 MA's), (Start: 37 @50182 has 19 MA's), (46, 50209), (Start: 50 @50221 has 1 MA's), (60, 50308), (63, 50320), (66, 50341), (69, 50362),

Gene: Netyap_121 Start: 66651, Stop: 66460, Start Num: 39
Candidate Starts for Netyap_121:
(36, 66663), (Start: 39 @66651 has 35 MA's), (Start: 53 @66606 has 1 MA's), (68, 66480),

Gene: Nicholasp3_123 Start: 66167, Stop: 65976, Start Num: 39
Candidate Starts for Nicholasp3_123:
(36, 66179), (Start: 39 @66167 has 35 MA's), (Start: 53 @66122 has 1 MA's), (68, 65996),

Gene: Odin_78 Start: 45907, Stop: 45725, Start Num: 44
Candidate Starts for Odin_78:
(Start: 44 @45907 has 52 MA's), (Start: 48 @45892 has 1 MA's), (Start: 49 @45889 has 1 MA's), (Start: 50 @45886 has 1 MA's),

Gene: OhShagHennessy_109 Start: 62960, Stop: 62787, Start Num: 44
Candidate Starts for OhShagHennessy_109:
(18, 63095), (21, 63062), (22, 63044), (30, 63008), (34, 62993), (Start: 44 @62960 has 52 MA's), (Start: 47 @62948 has 3 MA's),

Gene: OkiRoe_73 Start: 51079, Stop: 51276, Start Num: 37
Candidate Starts for OkiRoe_73:
(13, 50923), (19, 50980), (Start: 32 @51067 has 3 MA's), (Start: 35 @51070 has 4 MA's), (Start: 37 @51079 has 19 MA's), (46, 51106), (63, 51217), (66, 51238), (69, 51259),

Gene: Orange_85 Start: 46574, Stop: 46398, Start Num: 44
Candidate Starts for Orange_85:
(Start: 44 @46574 has 52 MA's), (61, 46463), (62, 46457), (63, 46454), (66, 46433),

Gene: PYPDinur_133 Start: 68388, Stop: 68197, Start Num: 39
Candidate Starts for PYPDinur_133:
(36, 68400), (Start: 39 @68388 has 35 MA's), (68, 68217),

Gene: Paola_72 Start: 50658, Stop: 50855, Start Num: 37
Candidate Starts for Paola_72:
(13, 50502), (Start: 32 @50646 has 3 MA's), (Start: 35 @50649 has 4 MA's), (Start: 37 @50658 has 19 MA's), (46, 50685), (58, 50772), (59, 50781), (60, 50784), (63, 50796), (66, 50817), (69, 50838),

Gene: PegLeg_144 Start: 73347, Stop: 73129, Start Num: 31
Candidate Starts for PegLeg_144:
(14, 73470), (17, 73440), (28, 73356), (Start: 31 @73347 has 2 MA's), (Start: 38 @73320 has 10 MA's), (Start: 47 @73296 has 3 MA's), (66, 73167), (69, 73146), (70, 73137),

Gene: Petersenfast_81 Start: 45455, Stop: 45279, Start Num: 44
Candidate Starts for Petersenfast_81:
(Start: 44 @45455 has 52 MA's), (61, 45344), (62, 45338), (63, 45335), (66, 45314),

Gene: Poochiewood_116 Start: 65631, Stop: 65458, Start Num: 44
Candidate Starts for Poochiewood_116:
(18, 65766), (21, 65733), (22, 65715), (30, 65679), (34, 65664), (Start: 44 @65631 has 52 MA's), (Start: 47 @65619 has 3 MA's),

Gene: Psycho_72 Start: 49308, Stop: 49505, Start Num: 37
Candidate Starts for Psycho_72:

(13, 49152), (19, 49209), (Start: 32 @49296 has 3 MA's), (Start: 35 @49299 has 4 MA's), (Start: 37 @49308 has 19 MA's), (46, 49335), (Start: 50 @49347 has 1 MA's), (60, 49434), (63, 49446), (66, 49467), (69, 49488),

Gene: Quby_133 Start: 67900, Stop: 67709, Start Num: 39
Candidate Starts for Quby_133:
(36, 67912), (Start: 39 @67900 has 35 MA's), (68, 67729),

Gene: Quokka_78 Start: 45302, Stop: 45120, Start Num: 44
Candidate Starts for Quokka_78:
(Start: 44 @45302 has 52 MA's), (Start: 45 @45296 has 1 MA's), (71, 45125),

Gene: Reindeer_142 Start: 74200, Stop: 74033, Start Num: 47
Candidate Starts for Reindeer_142:
(Start: 38 @74224 has 10 MA's), (42, 74215), (Start: 47 @74200 has 3 MA's), (66, 74071), (69, 74050),

Gene: Rey_161 Start: 75634, Stop: 75455, Start Num: 48
Candidate Starts for Rey_161:
(4, 75964), (9, 75925), (10, 75889), (36, 75673), (46, 75640), (Start: 48 @75634 has 1 MA's), (62, 75532), (65, 75511),

Gene: Rose5_118 Start: 64472, Stop: 64299, Start Num: 44
Candidate Starts for Rose5_118:
(18, 64607), (21, 64574), (22, 64556), (30, 64520), (34, 64505), (Start: 44 @64472 has 52 MA's), (Start: 47 @64460 has 3 MA's),

Gene: Rossetti_122 Start: 66112, Stop: 65921, Start Num: 39
Candidate Starts for Rossetti_122:
(36, 66124), (Start: 39 @66112 has 35 MA's), (Start: 53 @66067 has 1 MA's), (68, 65941),

Gene: Salz_80 Start: 45370, Stop: 45194, Start Num: 44
Candidate Starts for Salz_80:
(Start: 44 @45370 has 52 MA's), (61, 45259), (62, 45253), (63, 45250), (66, 45229),

Gene: Sarshaun_124 Start: 67434, Stop: 67243, Start Num: 39
Candidate Starts for Sarshaun_124:
(36, 67446), (Start: 39 @67434 has 35 MA's), (Start: 53 @67389 has 1 MA's), (68, 67263),

Gene: Saskia_83 Start: 45918, Stop: 45742, Start Num: 44
Candidate Starts for Saskia_83:
(Start: 44 @45918 has 52 MA's), (61, 45807), (62, 45801), (63, 45798), (66, 45777),

Gene: Serenity_80 Start: 45494, Stop: 45312, Start Num: 44
Candidate Starts for Serenity_80:
(Start: 44 @45494 has 52 MA's), (Start: 45 @45488 has 1 MA's), (71, 45317),

Gene: Sham4_81 Start: 45456, Stop: 45280, Start Num: 44
Candidate Starts for Sham4_81:
(Start: 44 @45456 has 52 MA's), (61, 45345), (62, 45339), (63, 45336), (66, 45315),

Gene: Sheng711_134 Start: 67843, Stop: 67652, Start Num: 39
Candidate Starts for Sheng711_134:
(36, 67855), (Start: 39 @67843 has 35 MA's), (68, 67672),

Gene: Skinny_147 Start: 74437, Stop: 74246, Start Num: 38
Candidate Starts for Skinny_147:
(14, 74587), (17, 74557), (28, 74473), (Start: 31 @74464 has 2 MA's), (Start: 38 @74437 has 10 MA's), (Start: 47 @74413 has 3 MA's), (66, 74284), (69, 74263), (70, 74254),

Gene: SlimJimmy_139 Start: 73122, Stop: 72955, Start Num: 47
Candidate Starts for SlimJimmy_139:
(15, 73269), (19, 73242), (Start: 38 @73146 has 10 MA's), (Start: 47 @73122 has 3 MA's), (66, 72993), (69, 72972), (70, 72963),

Gene: Snape_85 Start: 46563, Stop: 46387, Start Num: 44
Candidate Starts for Snape_85:
(Start: 44 @46563 has 52 MA's), (61, 46452), (62, 46446), (63, 46443), (66, 46422),

Gene: SoJulia_125 Start: 68133, Stop: 67987, Start Num: 53
Candidate Starts for SoJulia_125:
(36, 68190), (Start: 39 @68178 has 35 MA's), (Start: 53 @68133 has 1 MA's), (68, 68007),

Gene: SoSeph_73 Start: 51006, Stop: 51203, Start Num: 37
Candidate Starts for SoSeph_73:
(13, 50850), (19, 50907), (Start: 32 @50994 has 3 MA's), (Start: 35 @50997 has 4 MA's), (Start: 37 @51006 has 19 MA's), (46, 51033), (Start: 50 @51045 has 1 MA's), (60, 51132), (63, 51144), (66, 51165), (69, 51186),

Gene: Soap141_123 Start: 67434, Stop: 67243, Start Num: 39
Candidate Starts for Soap141_123:
(36, 67446), (Start: 39 @67434 has 35 MA's), (Start: 53 @67389 has 1 MA's), (68, 67263),

Gene: Superchunk_79 Start: 45563, Stop: 45399, Start Num: 49
Candidate Starts for Superchunk_79:
(Start: 48 @45566 has 1 MA's), (Start: 49 @45563 has 1 MA's), (Start: 50 @45560 has 1 MA's), (56, 45512), (57, 45503),

Gene: Swirley_75 Start: 45159, Stop: 45007, Start Num: 51
Candidate Starts for Swirley_75:
(Start: 35 @45207 has 4 MA's), (Start: 51 @45159 has 14 MA's), (64, 45051), (66, 45042),

Gene: SydNat_74 Start: 45200, Stop: 45048, Start Num: 51
Candidate Starts for SydNat_74:
(Start: 35 @45248 has 4 MA's), (Start: 51 @45200 has 14 MA's), (66, 45083),

Gene: Tarynearal_74 Start: 45043, Stop: 44843, Start Num: 35
Candidate Starts for Tarynearal_74:
(Start: 35 @45043 has 4 MA's), (Start: 51 @44995 has 14 MA's), (64, 44887), (66, 44878),

Gene: Theia_74 Start: 45480, Stop: 45328, Start Num: 51
Candidate Starts for Theia_74:
(Start: 35 @45528 has 4 MA's), (Start: 51 @45480 has 14 MA's), (64, 45372), (66, 45363),

Gene: Thyatira_75 Start: 53010, Stop: 53207, Start Num: 37
Candidate Starts for Thyatira_75:

(13, 52854), (Start: 32 @52998 has 3 MA's), (Start: 35 @53001 has 4 MA's), (Start: 37 @53010 has 19 MA's), (46, 53037), (60, 53136), (63, 53148), (66, 53169), (69, 53190),

Gene: Timothy_85 Start: 46540, Stop: 46364, Start Num: 44
Candidate Starts for Timothy_85:
(Start: 44 @46540 has 52 MA's), (61, 46429), (62, 46423), (63, 46420), (66, 46399),

Gene: TinyTimmy_83 Start: 46269, Stop: 46093, Start Num: 44
Candidate Starts for TinyTimmy_83:
(Start: 44 @46269 has 52 MA's), (61, 46158), (62, 46152), (63, 46149), (66, 46128),

Gene: TipsytheTRex_76 Start: 45496, Stop: 45314, Start Num: 44
Candidate Starts for TipsytheTRex_76:
(Start: 44 @45496 has 52 MA's), (Start: 45 @45490 has 1 MA's), (71, 45319),

Gene: Tourach_124 Start: 67787, Stop: 67599, Start Num: 39
Candidate Starts for Tourach_124:
(36, 67799), (Start: 39 @67787 has 35 MA's), (68, 67616),

Gene: TpudiCK_142 Start: 72406, Stop: 72215, Start Num: 38
Candidate Starts for TpudiCK_142:
(15, 72529), (19, 72502), (Start: 38 @72406 has 10 MA's), (Start: 47 @72382 has 3 MA's), (66, 72253), (69, 72232), (70, 72223),

Gene: Twigg_75 Start: 45240, Stop: 45088, Start Num: 51
Candidate Starts for Twigg_75:
(Start: 35 @45288 has 4 MA's), (Start: 51 @45240 has 14 MA's), (64, 45132), (66, 45123),

Gene: TyDawg_135 Start: 72589, Stop: 72398, Start Num: 38
Candidate Starts for TyDawg_135:
(15, 72712), (19, 72685), (Start: 38 @72589 has 10 MA's), (Start: 47 @72565 has 3 MA's), (66, 72436), (69, 72415), (70, 72406),

Gene: Tyson_118 Start: 64902, Stop: 64729, Start Num: 44
Candidate Starts for Tyson_118:
(18, 65037), (21, 65004), (22, 64986), (30, 64950), (34, 64935), (Start: 44 @64902 has 52 MA's), (Start: 47 @64890 has 3 MA's),

Gene: UPIE_116 Start: 64139, Stop: 63966, Start Num: 44
Candidate Starts for UPIE_116:
(18, 64274), (21, 64241), (22, 64223), (30, 64187), (34, 64172), (Start: 44 @64139 has 52 MA's), (Start: 47 @64127 has 3 MA's),

Gene: Underpass_115 Start: 61207, Stop: 61016, Start Num: 39
Candidate Starts for Underpass_115:
(36, 61219), (Start: 39 @61207 has 35 MA's), (Start: 53 @61162 has 1 MA's), (68, 61036),

Gene: Vetrix_122 Start: 67077, Stop: 66886, Start Num: 39
Candidate Starts for Vetrix_122:
(36, 67089), (Start: 39 @67077 has 35 MA's), (Start: 53 @67032 has 1 MA's), (68, 66906),

Gene: ViviJ_78 Start: 51015, Stop: 51212, Start Num: 37
Candidate Starts for ViviJ_78:

(13, 50859), (19, 50916), (Start: 32 @51003 has 3 MA's), (Start: 35 @51006 has 4 MA's), (Start: 37 @51015 has 19 MA's), (46, 51042), (Start: 50 @51054 has 1 MA's), (60, 51141), (63, 51153), (66, 51174), (69, 51195),

Gene: Wamburgrxpress_119 Start: 64929, Stop: 64756, Start Num: 44
Candidate Starts for Wamburgrxpress_119:
(22, 65013), (30, 64977), (Start: 44 @64929 has 52 MA's), (Start: 50 @64908 has 1 MA's),

Gene: Waterfoul_74 Start: 51080, Stop: 51277, Start Num: 37
Candidate Starts for Waterfoul_74:
(13, 50924), (Start: 32 @51068 has 3 MA's), (Start: 35 @51071 has 4 MA's), (Start: 37 @51080 has 19 MA's), (46, 51107), (60, 51206), (63, 51218), (66, 51239), (69, 51260),

Gene: Wigglewiggle_123 Start: 66673, Stop: 66482, Start Num: 39
Candidate Starts for Wigglewiggle_123:
(36, 66685), (Start: 39 @66673 has 35 MA's), (Start: 53 @66628 has 1 MA's), (68, 66502),

Gene: Wilder_123 Start: 66306, Stop: 66115, Start Num: 39
Candidate Starts for Wilder_123:
(36, 66318), (Start: 39 @66306 has 35 MA's), (Start: 53 @66261 has 1 MA's), (68, 66135),

Gene: Winky_123 Start: 66938, Stop: 66747, Start Num: 39
Candidate Starts for Winky_123:
(36, 66950), (Start: 39 @66938 has 35 MA's), (Start: 53 @66893 has 1 MA's), (68, 66767),

Gene: Wolpertinger_83 Start: 46575, Stop: 46399, Start Num: 44
Candidate Starts for Wolpertinger_83:
(Start: 44 @46575 has 52 MA's), (61, 46464), (62, 46458), (63, 46455), (66, 46434),

Gene: Wyatt2_117 Start: 64565, Stop: 64392, Start Num: 44
Candidate Starts for Wyatt2_117:
(18, 64700), (21, 64667), (22, 64649), (30, 64613), (34, 64598), (Start: 44 @64565 has 52 MA's), (Start: 47 @64553 has 3 MA's),

Gene: Zakai_125 Start: 66648, Stop: 66457, Start Num: 39
Candidate Starts for Zakai_125:
(36, 66660), (Start: 39 @66648 has 35 MA's), (Start: 53 @66603 has 1 MA's), (68, 66477),

Gene: Zaria_121 Start: 64874, Stop: 64701, Start Num: 44
Candidate Starts for Zaria_121:
(18, 65009), (21, 64976), (22, 64958), (30, 64922), (34, 64907), (Start: 44 @64874 has 52 MA's), (Start: 47 @64862 has 3 MA's),

Gene: ZhongYanYuan_120 Start: 66032, Stop: 65847, Start Num: 39
Candidate Starts for ZhongYanYuan_120:
(36, 66044), (Start: 39 @66032 has 35 MA's), (67, 65867),

Gene: Zolita_73 Start: 45183, Stop: 45031, Start Num: 51
Candidate Starts for Zolita_73:
(Start: 35 @45231 has 4 MA's), (Start: 51 @45183 has 14 MA's), (66, 45066),