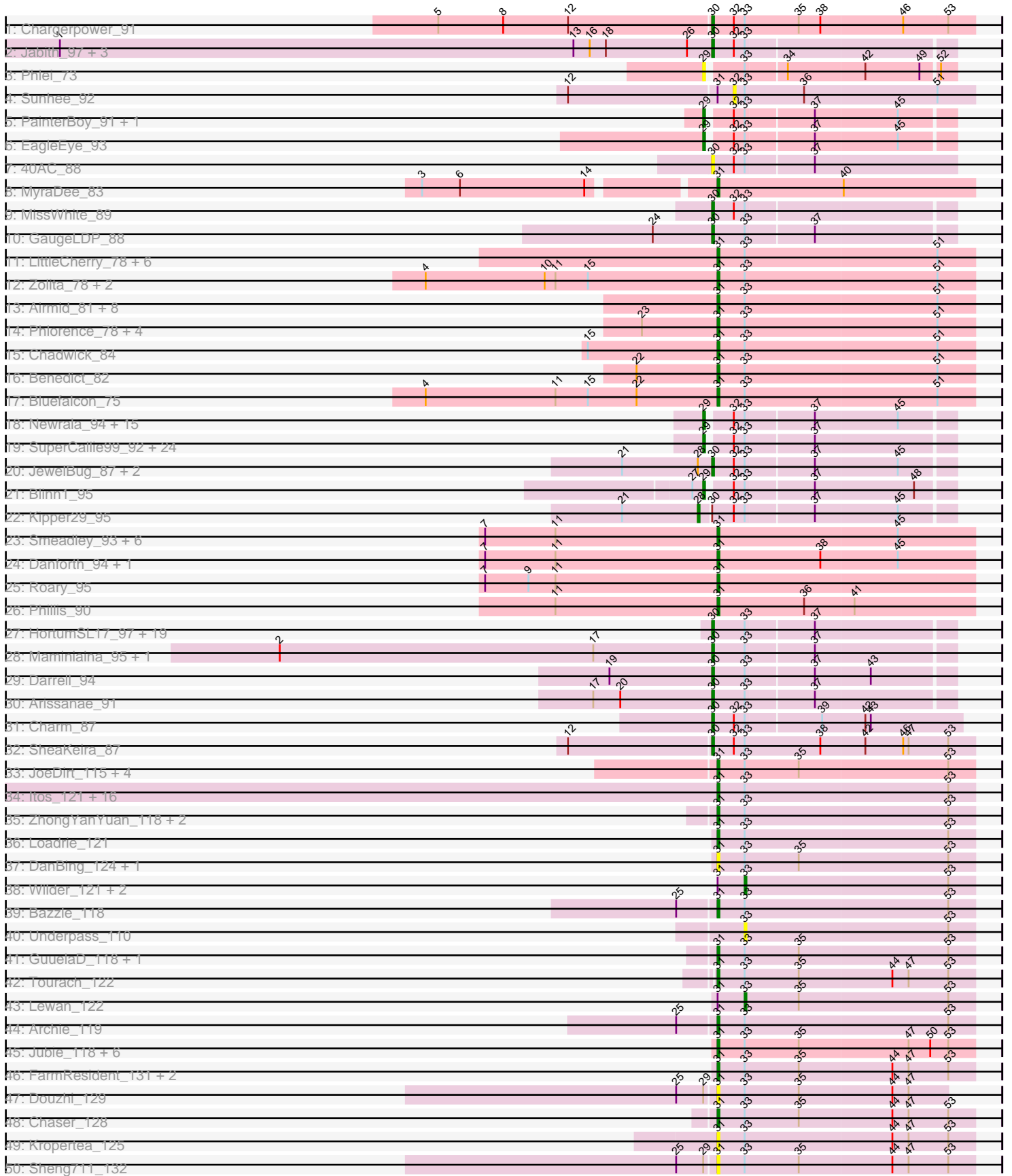
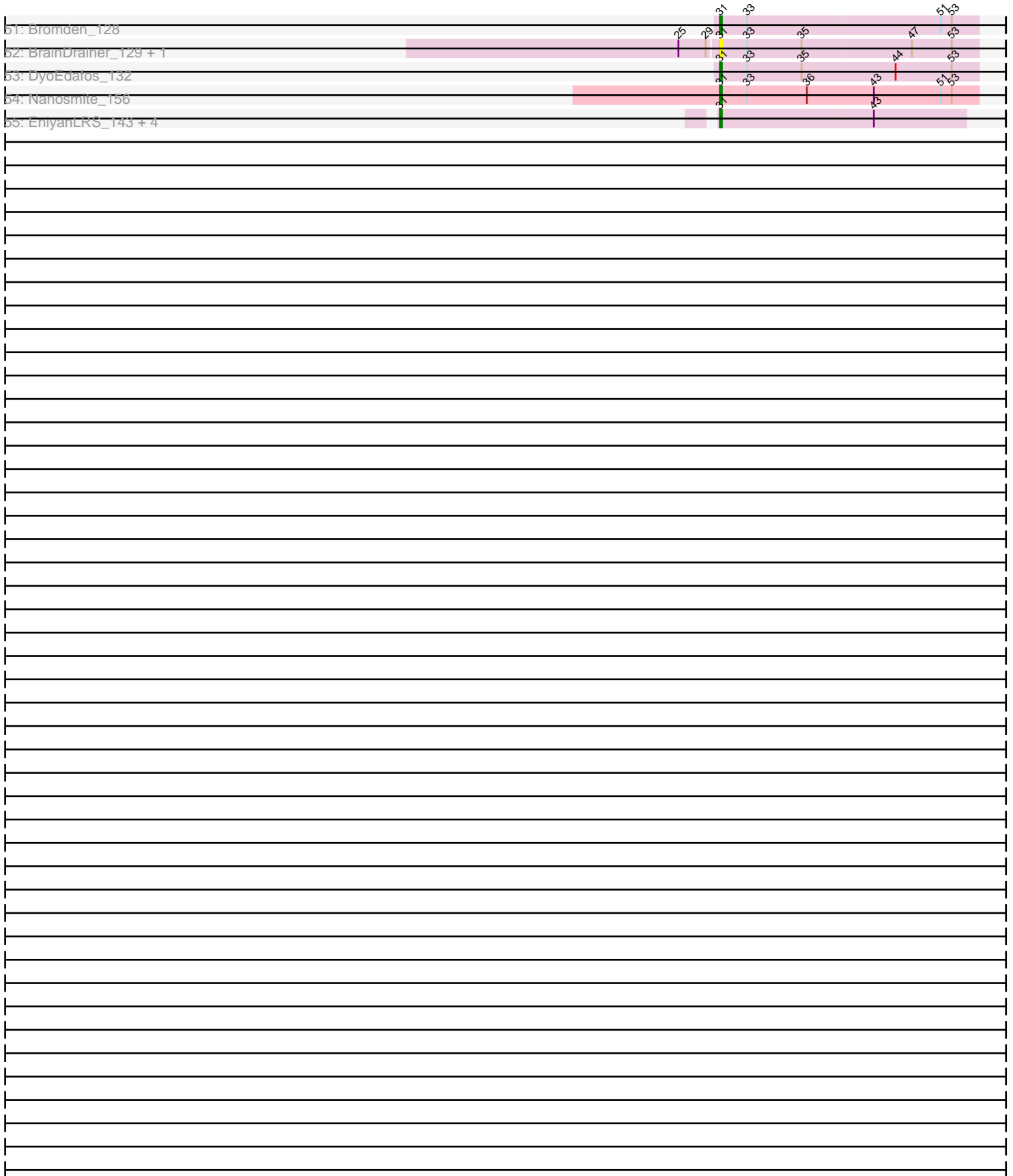


Pham 202708



Pham 202708



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 202708 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202708 has 186 members, 36 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower_91
- Track 2 : Jabith_97, Salz_93, Et2Brutus_97, Hutc2_94
- Track 3 : Phlei_73
- Track 4 : Sunhee_92
- Track 5 : PainterBoy_91, Lucyedi_92
- Track 6 : EagleEye_93
- Track 7 : 40AC_88
- Track 8 : MyraDee_83
- Track 9 : MissWhite_89
- Track 10 : GaugeLDP_88
- Track 11 : LittleCherry_78, HuhtaEnerson15_78, Micasa_81, Milcery_78, George_74, Bonamassa_80, Tarynearal_80
- Track 12 : Zolita_78, Ghoulboy_80, SydNat_79
- Track 13 : Airmid_81, Jovo_78, ForGetIt_81, ElTiger69_84, PickleBack_81, Aragog_80, Lev2_80, Twigg_78, Jabiru_79
- Track 14 : Phlorence_78, Conspiracy_80, Discoknowium_77, AgentM_79, Tiger_78
- Track 15 : Chadwick_84
- Track 16 : Benedict_82
- Track 17 : Bluefalcon_75
- Track 18 : Newrala_94, Neeharika16_94, Kazan_96, EricB_93, DaVinci_93, Pmask_94, Chartreuse_93, Priamo_95, SmellyB_95, Hoot_90, Candra_93, BABullseye_88, SuperAwesome_95, VohminGhazi_95, Cookiedough_95, McFly_95
- Track 19 : SuperCallie99_92, Zaka_98, Indra_100, Hammer_98, Roksolana_98, BlessJoy_97, Yokurt_97, Hexamo_97, Jeffabunny_86, Zulu_99, Gladiator_94, Rifter_98, CloudWang3_98, Lilbunny_94, Isiphiwo_92, Gruunaga_98, Blue7_99, Wiks_97, ToneTone_94, Koko_99, Artemis2UCLA_97, Helmet_99, Tucker_98, Temprado_99, Garak_99
- Track 20 : JewelBug_87, Dorothea_95, Jordennis_93
- Track 21 : Blinn1_95
- Track 22 : Kipper29_95
- Track 23 : Smeadley_93, Groundhog_90, Expelliarmus_90, Saintus_88, Stephig9_94, NearlyHeadless_94, Astro_92
- Track 24 : Danforth_94, Dixon_92
- Track 25 : Roary_95
- Track 26 : Phillis_90
- Track 27 : HortumSL17_97, Catalina_98, Aliter_89, Onglai_94, Scherzo_94, Phonnegut_96, Tubs_96, Sachima_92, Pioneer_96, Phaeder_96, Hanray_94,

Beemo_96, Lilleskat_93, Jiawan_94, Myxus_96, Holec_95, PackMan_91, RyeScarlet_97, Ugenie5_83, EdogawaKiddo_95

- Track 28 : Maminiaina_95, BogosyJay_95
- Track 29 : Darrell_94
- Track 30 : Arissanae_91
- Track 31 : Charm_87
- Track 32 : SheaKeira_87
- Track 33 : JoeDirt_115, Zaria_117, Calm_120, Wamburgxpress_114, Poochiewood_112
- Track 34 : Itos_121, BigCheese_120, DrSeegs_119, Kahlid_120, Soap141_121, Wigglewiggles_121, Breezons_121, Miley16_121, LilDestine_117, Winky_121, Gabriela_120, Sarshaun_122, Faith1_119, BobsGarage_120, Gardann_120, Netyap_119, Vetrix_120
- Track 35 : ZhongYanYuan_118, Finemlucis_119, Baoshan_118
- Track 36 : Loadie_121
- Track 37 : DanBing_124, DHan_122
- Track 38 : Wilder_121, Nicholasp3_121, Zakai_123
- Track 39 : Bazzle_118
- Track 40 : Underpass_110
- Track 41 : GuuelaD_118, Claus_119
- Track 42 : Tourach_122
- Track 43 : Lewan_122
- Track 44 : Archie_119
- Track 45 : Jubie_118, Clautastrophe_117, Lumos_118, Snenia_117, Jobypre_119, TriFive_118, MsGreen_119
- Track 46 : FarmResident_131, Douge_131, Quby_130
- Track 47 : Douzhi_129
- Track 48 : Chaser_128
- Track 49 : Kropertea_125
- Track 50 : Sheng711_132
- Track 51 : Bromden_128
- Track 52 : BrainDrainer_129, PYPDinur_131
- Track 53 : DyoEdafos_132
- Track 54 : Nanosmite_156
- Track 55 : EniyanLRS_143, MaryV_136, Wildcat_150, Cosmo_151, Azrael100_143

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

The start number called the most often in the published annotations is 31, it was called in 78 of the 150 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM_79, Airmid_81, Aragog_80, Archie_119, Astro_92, Azrael100_143, Baoshan_118, Bazzle_118, Benedict_82, BigCheese_120, Bluefalcon_75, BobsGarage_120, Bonamassa_80, BrainDrainer_129, Breezons_121, Bromden_128, Calm_120, Chadwick_84, Chaser_128, Claus_119, Clautastrophe_117, Conspiracy_80, Cosmo_151, DHan_122, DanBing_124, Danforth_94, Discoknowium_77, Dixon_92, Douge_131, Douzhi_129, DrSeegs_119, DyoEdafos_132, ElTiger69_84, EniyanLRS_143, Expelliarmus_90, Faith1_119, FarmResident_131, Finemlucis_119, ForGetIt_81, Gabriela_120, Gardann_120,

George_74, Ghoulboy_80, Groundhog_90, GuuelaD_118, HuhtaEnerson15_78, Itos_121, Jabiru_79, Jobypre_119, JoeDirt_115, Jovo_78, Jubie_118, Kahlid_120, Kropertea_125, Lev2_80, LilDestine_117, LittleCherry_78, Loadrie_121, Lumos_118, MaryV_136, Micasa_81, Milcery_78, Miley16_121, MsGreen_119, MyraDee_83, Nanosmite_156, NearlyHeadless_94, Netyap_119, PYPDinur_131, Phillis_90, Phlorence_78, PickleBack_81, Poochiewood_112, Quby_130, Roary_95, Saintus_88, Sarshaun_122, Sheng711_132, Smeadley_93, Snenia_117, Soap141_121, Stephig9_94, SydNat_79, Tarynearal_80, Tiger_78, Tourach_122, TriFive_118, Twigg_78, Vetrix_120, Wamburggrxpress_114, Wigglewiggle_121, Wildcat_150, Winky_121, Zaria_117, ZhongYanYuan_118, Zolita_78,

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

- Lewan_122, Nicholasp3_121, Sunhee_92, Wilder_121, Zakai_123,

Genes that do not have the "Most Annotated" start:

- 40AC_88, Aliter_89, Arissanae_91, Artemis2UCLA_97, BABullseye_88, Beemo_96, BlessJoy_97, Blinn1_95, Blue7_99, BogosyJay_95, Candra_93, Catalina_98, Chargerpower_91, Charm_87, Chartreuse_93, CloudWang3_98, Cookiedough_95, DaVinci_93, Darrell_94, Dorothea_95, EagleEye_93, EdogawaKiddo_95, EricB_93, Et2Brutus_97, Garak_99, GaugeLDP_88, Gladiator_94, Gruunaga_98, Hammer_98, Hanray_94, Helmet_99, Hexamo_97, Horex_95, Hoot_90, HortumSL17_97, Hutc2_94, Indra_100, Isiphiwo_92, Jabith_97, Jeffabunny_86, JewelBug_87, Jiawan_94, Jordennis_93, Kazan_96, Kipper29_95, Koko_99, Lilbunny_94, Lilleskat_93, Lucyedi_92, Maminiaina_95, McFly_95, MissWhite_89, Myxus_96, Neeharika16_94, Newrala_94, Onglai_94, PackMan_91, PainterBoy_91, Phaeder_96, Phlei_73, Phonnegut_96, Pioneer_96, Pmask_94, Priamo_95, Rifter_98, Roksolana_98, RyeScarlet_97, Sachima_92, Salz_93, Scherzo_94, SheaKeira_87, SmellyB_95, SuperAwesome_95, SuperCallie99_92, Temprado_99, ToneTone_94, Tubs_96, Tucker_98, Ugenie5_83, Underpass_110, VohminGhazi_95, Wiks_97, Yokurt_97, Zaka_98, Zulu_99,

Summary by start number:

Start 28:

- Found in 4 of 186 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Kipper29_95 (A6),

Start 29:

- Found in 50 of 186 (26.9%) of genes in pham
- Manual Annotations of this start: 39 of 150
- Called 92.0% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA_97 (A6), BABullseye_88 (A6), BlessJoy_97 (A6), Blinn1_95 (A6), Blue7_99 (A6), Candra_93 (A6), Chartreuse_93 (A6), CloudWang3_98 (A6), Cookiedough_95 (A6), DaVinci_93 (A6), EagleEye_93 (A16), EricB_93 (A6), Garak_99 (A6), Gladiator_94 (A6), Gruunaga_98 (A6), Hammer_98 (A6), Helmet_99 (A6), Hexamo_97 (A6), Hoot_90 (A6), Indra_100 (A6), Isiphiwo_92 (A6), Jeffabunny_86 (A6), Kazan_96 (A6), Koko_99 (A6), Lilbunny_94 (A6), Lucyedi_92 (A16), McFly_95 (A6), Neeharika16_94 (A6), Newrala_94 (A6), PainterBoy_91 (A16), Phlei_73 (A13), Pmask_94 (A6), Priamo_95 (A6), Rifter_98 (A6), Roksolana_98 (A6), SmellyB_95 (A6), SuperAwesome_95 (A6), SuperCallie99_92 (A6), Temprado_99 (A6), ToneTone_94 (A6), Tucker_98 (A6),

VohminGhazi_95 (A6), Wiks_97 (A6), Yokurt_97 (A6), Zaka_98 (A6), Zulu_99 (A6),

Start 30:

- Found in 38 of 186 (20.4%) of genes in pham
- Manual Annotations of this start: 28 of 150
- Called 97.4% of time when present
- Phage (with cluster) where this start called: 40AC_88 (A17), Aliter_89 (A9), Arissanae_91 (A9), Beemo_96 (A9), BogosyJay_95 (A9), Catalina_98 (A9), Chargerpower_91 (A), Charm_87 (A9), Darrell_94 (A9), Dorothea_95 (A6), EdogawaKiddo_95 (A9), Et2Brutus_97 (A11), GaugeLDP_88 (A2), Hanray_94 (A9), Horex_95 (A9), HortumSL17_97 (A9), Hutc2_94 (A11), Jabith_97 (A11), JewelBug_87 (A6), Jiawan_94 (A9), Jordennis_93 (A6), Lilleskat_93 (A9), Maminiaina_95 (A9), MissWhite_89 (A2), Myxus_96 (A9), Onglai_94 (A9), PackMan_91 (A9), Phaeder_96 (A9), Phonnegut_96 (A9), Pioneer_96 (A9), RyeScarlet_97 (A9), Sachima_92 (A9), Salz_93 (A11), Scherzo_94 (A9), SheaKeira_87 (A9), Tubs_96 (A9), Ugenie5_83 (A9),

Start 31:

- Found in 101 of 186 (54.3%) of genes in pham
- Manual Annotations of this start: 78 of 150
- Called 95.0% of time when present
- Phage (with cluster) where this start called: AgentM_79 (A5), Airmid_81 (A5), Aragog_80 (A5), Archie_119 (L2), Astro_92 (A8), Azrael100_143 (V), Baoshan_118 (L2), Bazzle_118 (L2), Benedict_82 (A5), BigCheese_120 (L2), Bluefalcon_75 (A5), BobsGarage_120 (L2), Bonamassa_80 (A5), BrainDrainer_129 (L4), Breezona_121 (L2), Bromden_128 (L4), Calm_120 (L1), Chadwick_84 (A5), Chaser_128 (L4), Claus_119 (L2), Clautastrophe_117 (L3), Conspiracy_80 (A5), Cosmo_151 (V), DHan_122 (L2), DanBing_124 (L2), Danforth_94 (A8), Discoknowium_77 (A5), Dixon_92 (A8), Douge_131 (L4), Douzhi_129 (L4), DrSeegs_119 (L2), DyoEdafos_132 (L4), EITiger69_84 (A5), EniyanLRS_143 (V), Expelliarmus_90 (A8), Faith1_119 (L2), FarmResident_131 (L4), Finemlucis_119 (L2), ForGetIt_81 (A5), Gabriela_120 (L2), Gardann_120 (L2), George_74 (A5), Ghoulboy_80 (A5), Groundhog_90 (A8), GuuelaD_118 (L2), HuhtaEnerson15_78 (A5), Itos_121 (L2), Jabiru_79 (A5), Jobypre_119 (L3), JoeDirt_115 (L1), Jovo_78 (A5), Jubie_118 (L3), Kahlid_120 (L2), Kropertea_125 (L4), Lev2_80 (A5), LilDestine_117 (L2), LittleCherry_78 (A5), Loadrie_121 (L2), Lumos_118 (L3), MaryV_136 (V), Micasa_81 (A5), Milcery_78 (A5), Miley16_121 (L2), MsGreen_119 (L3), MyraDee_83 (A18), Nanosmite_156 (M3), NearlyHeadless_94 (A8), Netyap_119 (L2), PYPDinur_131 (L4), Phillis_90 (A8), Phlorence_78 (A5), PickleBack_81 (A5), Poochiewood_112 (L1), Quby_130 (L4), Roary_95 (A8), Saintus_88 (A8), Sarshaun_122 (L2), Sheng711_132 (L4), Smeadley_93 (A8), Snenia_117 (L3), Soap141_121 (L2), Stepfig9_94 (A8), SydNat_79 (A5), Tarynearal_80 (A5), Tiger_78 (A5), Tourach_122 (L2), TriFive_118 (L3), Twigg_78 (A5), Vetrix_120 (L2), Wamburggrxpress_114 (L1), Wigglewiggle_121 (L2), Wildcat_150 (V), Winky_121 (L2), Zaria_117 (L1), ZhongYanYuan_118 (L2), Zolita_78 (A5),

Start 32:

- Found in 59 of 186 (31.7%) of genes in pham
- No Manual Annotations of this start.
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Sunhee_92 (A14),

Start 33:

- Found in 169 of 186 (90.9%) of genes in pham
- Manual Annotations of this start: 4 of 150
- Called 3.0% of time when present
- Phage (with cluster) where this start called: Lewan_122 (L2), Nicholasp3_121 (L2), Underpass_110 (L2), Wilder_121 (L2), Zakai_123 (L2),

Summary by clusters:

There are 18 clusters represented in this pham: A, A14, A17, A16, A11, A13, L1, A6, A18, L4, A2, L2, L3, M3, V, A9, A8, A5,

Info for manual annotations of cluster A:

- Start number 30 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A11:

- Start number 30 was manually annotated 4 times for cluster A11.

Info for manual annotations of cluster A16:

- Start number 29 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 31 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 30 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A5:

- Start number 31 was manually annotated 26 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 28 was manually annotated 1 time for cluster A6.
- Start number 29 was manually annotated 36 times for cluster A6.
- Start number 30 was manually annotated 3 times for cluster A6.

Info for manual annotations of cluster A8:

- Start number 31 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 30 was manually annotated 18 times for cluster A9.

Info for manual annotations of cluster L1:

- Start number 31 was manually annotated 4 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 31 was manually annotated 21 times for cluster L2.
- Start number 33 was manually annotated 4 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 31 was manually annotated 5 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 31 was manually annotated 4 times for cluster L4.

Info for manual annotations of cluster M3:

- Start number 31 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 31 was manually annotated 5 times for cluster V.

Gene Information:

Gene: 40AC_88 Start: 50616, Stop: 50485, Start Num: 30

Candidate Starts for 40AC_88:

(Start: 30 @50616 has 28 MA's), (32, 50604), (Start: 33 @50598 has 4 MA's), (37, 50562),

Gene: AgentM_79 Start: 46397, Stop: 46257, Start Num: 31

Candidate Starts for AgentM_79:

(23, 46439), (Start: 31 @46397 has 78 MA's), (Start: 33 @46382 has 4 MA's), (51, 46277),

Gene: Airmid_81 Start: 46746, Stop: 46606, Start Num: 31

Candidate Starts for Airmid_81:

(Start: 31 @46746 has 78 MA's), (Start: 33 @46731 has 4 MA's), (51, 46626),

Gene: Aliter_89 Start: 47662, Stop: 47534, Start Num: 30

Candidate Starts for Aliter_89:

(Start: 30 @47662 has 28 MA's), (Start: 33 @47644 has 4 MA's), (37, 47608),

Gene: Aragog_80 Start: 46694, Stop: 46554, Start Num: 31

Candidate Starts for Aragog_80:

(Start: 31 @46694 has 78 MA's), (Start: 33 @46679 has 4 MA's), (51, 46574),

Gene: Archie_119 Start: 65851, Stop: 65711, Start Num: 31

Candidate Starts for Archie_119:

(25, 65872), (Start: 31 @65851 has 78 MA's), (Start: 33 @65836 has 4 MA's), (53, 65725),

Gene: Arissanae_91 Start: 50357, Stop: 50229, Start Num: 30

Candidate Starts for Arissanae_91:

(17, 50420), (20, 50405), (Start: 30 @50357 has 28 MA's), (Start: 33 @50339 has 4 MA's), (37, 50303),

Gene: Artemis2UCLA_97 Start: 49085, Stop: 48957, Start Num: 29

Candidate Starts for Artemis2UCLA_97:

(Start: 29 @49085 has 39 MA's), (32, 49073), (Start: 33 @49067 has 4 MA's), (37, 49031),

Gene: Astro_92 Start: 48233, Stop: 48093, Start Num: 31

Candidate Starts for Astro_92:

(7, 48362), (11, 48323), (Start: 31 @48233 has 78 MA's), (45, 48134),

Gene: Azrael100_143 Start: 69290, Stop: 69156, Start Num: 31

Candidate Starts for Azrael100_143:

(Start: 31 @69290 has 78 MA's), (43, 69206),

Gene: BABullseye_88 Start: 47223, Stop: 47095, Start Num: 29
Candidate Starts for BABullseye_88:
(Start: 29 @47223 has 39 MA's), (32, 47211), (Start: 33 @47205 has 4 MA's), (37, 47169), (45, 47124),

Gene: Baoshan_118 Start: 66069, Stop: 65929, Start Num: 31
Candidate Starts for Baoshan_118:
(Start: 31 @66069 has 78 MA's), (Start: 33 @66054 has 4 MA's), (53, 65943),

Gene: Bazzle_118 Start: 66439, Stop: 66299, Start Num: 31
Candidate Starts for Bazzle_118:
(25, 66460), (Start: 31 @66439 has 78 MA's), (Start: 33 @66424 has 4 MA's), (53, 66313),

Gene: Beemo_96 Start: 50495, Stop: 50367, Start Num: 30
Candidate Starts for Beemo_96:
(Start: 30 @50495 has 28 MA's), (Start: 33 @50477 has 4 MA's), (37, 50441),

Gene: Benedict_82 Start: 46562, Stop: 46422, Start Num: 31
Candidate Starts for Benedict_82:
(22, 46607), (Start: 31 @46562 has 78 MA's), (Start: 33 @46547 has 4 MA's), (51, 46442),

Gene: BigCheese_120 Start: 66330, Stop: 66190, Start Num: 31
Candidate Starts for BigCheese_120:
(Start: 31 @66330 has 78 MA's), (Start: 33 @66315 has 4 MA's), (53, 66204),

Gene: BlessJoy_97 Start: 49609, Stop: 49481, Start Num: 29
Candidate Starts for BlessJoy_97:
(Start: 29 @49609 has 39 MA's), (32, 49597), (Start: 33 @49591 has 4 MA's), (37, 49555),

Gene: Blinn1_95 Start: 48852, Stop: 48724, Start Num: 29
Candidate Starts for Blinn1_95:
(27, 48858), (Start: 29 @48852 has 39 MA's), (32, 48840), (Start: 33 @48834 has 4 MA's), (37, 48798),
(48, 48744),

Gene: Blue7_99 Start: 49319, Stop: 49191, Start Num: 29
Candidate Starts for Blue7_99:
(Start: 29 @49319 has 39 MA's), (32, 49307), (Start: 33 @49301 has 4 MA's), (37, 49265),

Gene: Bluefalcon_75 Start: 46979, Stop: 46839, Start Num: 31
Candidate Starts for Bluefalcon_75:
(4, 47141), (11, 47069), (15, 47051), (22, 47024), (Start: 31 @46979 has 78 MA's), (Start: 33 @46964 has 4 MA's), (51, 46859),

Gene: BobsGarage_120 Start: 66330, Stop: 66190, Start Num: 31
Candidate Starts for BobsGarage_120:
(Start: 31 @66330 has 78 MA's), (Start: 33 @66315 has 4 MA's), (53, 66204),

Gene: BogosyJay_95 Start: 50497, Stop: 50369, Start Num: 30
Candidate Starts for BogosyJay_95:
(2, 50734), (17, 50560), (Start: 30 @50497 has 28 MA's), (Start: 33 @50479 has 4 MA's), (37, 50443),

Gene: Bonamassa_80 Start: 46736, Stop: 46596, Start Num: 31
Candidate Starts for Bonamassa_80:
(Start: 31 @46736 has 78 MA's), (Start: 33 @46721 has 4 MA's), (51, 46616),

Gene: BrainDrainer_129 Start: 67611, Stop: 67471, Start Num: 31
Candidate Starts for BrainDrainer_129:
(25, 67632), (Start: 29 @67617 has 39 MA's), (Start: 31 @67611 has 78 MA's), (Start: 33 @67596 has 4 MA's), (35, 67566), (47, 67506), (53, 67485),

Gene: Breezona_121 Start: 66665, Stop: 66525, Start Num: 31
Candidate Starts for Breezona_121:
(Start: 31 @66665 has 78 MA's), (Start: 33 @66650 has 4 MA's), (53, 66539),

Gene: Bromden_128 Start: 68762, Stop: 68622, Start Num: 31
Candidate Starts for Bromden_128:
(Start: 31 @68762 has 78 MA's), (Start: 33 @68747 has 4 MA's), (51, 68642), (53, 68636),

Gene: Calm_120 Start: 64636, Stop: 64496, Start Num: 31
Candidate Starts for Calm_120:
(Start: 31 @64636 has 78 MA's), (Start: 33 @64621 has 4 MA's), (35, 64591), (53, 64510),

Gene: Candra_93 Start: 48931, Stop: 48803, Start Num: 29
Candidate Starts for Candra_93:
(Start: 29 @48931 has 39 MA's), (32, 48919), (Start: 33 @48913 has 4 MA's), (37, 48877), (45, 48832),

Gene: Catalina_98 Start: 50609, Stop: 50481, Start Num: 30
Candidate Starts for Catalina_98:
(Start: 30 @50609 has 28 MA's), (Start: 33 @50591 has 4 MA's), (37, 50555),

Gene: Chadwick_84 Start: 46627, Stop: 46487, Start Num: 31
Candidate Starts for Chadwick_84:
(15, 46699), (Start: 31 @46627 has 78 MA's), (Start: 33 @46612 has 4 MA's), (51, 46507),

Gene: Chargerpower_91 Start: 48512, Stop: 48369, Start Num: 30
Candidate Starts for Chargerpower_91:
(5, 48662), (8, 48626), (12, 48590), (Start: 30 @48512 has 28 MA's), (32, 48500), (Start: 33 @48494 has 4 MA's), (35, 48464), (38, 48452), (46, 48407), (53, 48383),

Gene: Charm_87 Start: 49003, Stop: 48869, Start Num: 30
Candidate Starts for Charm_87:
(Start: 30 @49003 has 28 MA's), (32, 48991), (Start: 33 @48985 has 4 MA's), (39, 48946), (42, 48922), (43, 48919),

Gene: Chartreuse_93 Start: 48232, Stop: 48104, Start Num: 29
Candidate Starts for Chartreuse_93:
(Start: 29 @48232 has 39 MA's), (32, 48220), (Start: 33 @48214 has 4 MA's), (37, 48178), (45, 48133),

Gene: Chaser_128 Start: 67472, Stop: 67332, Start Num: 31
Candidate Starts for Chaser_128:
(Start: 31 @67472 has 78 MA's), (Start: 33 @67457 has 4 MA's), (35, 67427), (44, 67376), (47, 67367), (53, 67346),

Gene: Claus_119 Start: 65982, Stop: 65842, Start Num: 31
Candidate Starts for Claus_119:
(Start: 31 @65982 has 78 MA's), (Start: 33 @65967 has 4 MA's), (35, 65937), (53, 65856),

Gene: Clautastrophe_117 Start: 66000, Stop: 65860, Start Num: 31
Candidate Starts for Clautastrophe_117:
(Start: 31 @66000 has 78 MA's), (Start: 33 @65985 has 4 MA's), (35, 65955), (47, 65895), (50, 65883),
(53, 65874),

Gene: CloudWang3_98 Start: 49614, Stop: 49486, Start Num: 29
Candidate Starts for CloudWang3_98:
(Start: 29 @49614 has 39 MA's), (32, 49602), (Start: 33 @49596 has 4 MA's), (37, 49560),

Gene: Conspiracy_80 Start: 46637, Stop: 46497, Start Num: 31
Candidate Starts for Conspiracy_80:
(23, 46679), (Start: 31 @46637 has 78 MA's), (Start: 33 @46622 has 4 MA's), (51, 46517),

Gene: Cookiedough_95 Start: 49542, Stop: 49414, Start Num: 29
Candidate Starts for Cookiedough_95:
(Start: 29 @49542 has 39 MA's), (32, 49530), (Start: 33 @49524 has 4 MA's), (37, 49488), (45, 49443),

Gene: Cosmo_151 Start: 69454, Stop: 69320, Start Num: 31
Candidate Starts for Cosmo_151:
(Start: 31 @69454 has 78 MA's), (43, 69370),

Gene: DHan_122 Start: 66380, Stop: 66240, Start Num: 31
Candidate Starts for DHan_122:
(Start: 31 @66380 has 78 MA's), (Start: 33 @66365 has 4 MA's), (35, 66335), (53, 66254),

Gene: DaVinci_93 Start: 48286, Stop: 48158, Start Num: 29
Candidate Starts for DaVinci_93:
(Start: 29 @48286 has 39 MA's), (32, 48274), (Start: 33 @48268 has 4 MA's), (37, 48232), (45, 48187),

Gene: DanBing_124 Start: 66747, Stop: 66607, Start Num: 31
Candidate Starts for DanBing_124:
(Start: 31 @66747 has 78 MA's), (Start: 33 @66732 has 4 MA's), (35, 66702), (53, 66621),

Gene: Danforth_94 Start: 48387, Stop: 48247, Start Num: 31
Candidate Starts for Danforth_94:
(7, 48516), (11, 48477), (Start: 31 @48387 has 78 MA's), (38, 48330), (45, 48288),

Gene: Darrell_94 Start: 49660, Stop: 49532, Start Num: 30
Candidate Starts for Darrell_94:
(19, 49714), (Start: 30 @49660 has 28 MA's), (Start: 33 @49642 has 4 MA's), (37, 49606), (43, 49576),

Gene: Discoknowium_77 Start: 46154, Stop: 46014, Start Num: 31
Candidate Starts for Discoknowium_77:
(23, 46196), (Start: 31 @46154 has 78 MA's), (Start: 33 @46139 has 4 MA's), (51, 46034),

Gene: Dixon_92 Start: 47792, Stop: 47652, Start Num: 31
Candidate Starts for Dixon_92:
(7, 47921), (11, 47882), (Start: 31 @47792 has 78 MA's), (38, 47735), (45, 47693),

Gene: Dorothea_95 Start: 49534, Stop: 49406, Start Num: 30
Candidate Starts for Dorothea_95:
(21, 49582), (Start: 28 @49540 has 1 MA's), (Start: 30 @49534 has 28 MA's), (32, 49522), (Start: 33
@49516 has 4 MA's), (37, 49480), (45, 49435),

Gene: Douge_131 Start: 68103, Stop: 67963, Start Num: 31
Candidate Starts for Douge_131:
(Start: 31 @68103 has 78 MA's), (Start: 33 @68088 has 4 MA's), (35, 68058), (44, 68007), (47, 67998),
(53, 67977),

Gene: Douzhi_129 Start: 67783, Stop: 67658, Start Num: 31
Candidate Starts for Douzhi_129:
(25, 67804), (Start: 29 @67789 has 39 MA's), (Start: 31 @67783 has 78 MA's), (Start: 33 @67768 has
4 MA's), (35, 67738), (44, 67687), (47, 67678),

Gene: DrSeegs_119 Start: 66665, Stop: 66525, Start Num: 31
Candidate Starts for DrSeegs_119:
(Start: 31 @66665 has 78 MA's), (Start: 33 @66650 has 4 MA's), (53, 66539),

Gene: DyoEdafos_132 Start: 67482, Stop: 67342, Start Num: 31
Candidate Starts for DyoEdafos_132:
(Start: 31 @67482 has 78 MA's), (Start: 33 @67467 has 4 MA's), (35, 67437), (44, 67386), (53, 67356),

Gene: EagleEye_93 Start: 50325, Stop: 50197, Start Num: 29
Candidate Starts for EagleEye_93:
(Start: 29 @50325 has 39 MA's), (32, 50313), (Start: 33 @50307 has 4 MA's), (37, 50271), (45, 50226),

Gene: EdogawaKiddo_95 Start: 50571, Stop: 50443, Start Num: 30
Candidate Starts for EdogawaKiddo_95:
(Start: 30 @50571 has 28 MA's), (Start: 33 @50553 has 4 MA's), (37, 50517),

Gene: EITiger69_84 Start: 47010, Stop: 46870, Start Num: 31
Candidate Starts for EITiger69_84:
(Start: 31 @47010 has 78 MA's), (Start: 33 @46995 has 4 MA's), (51, 46890),

Gene: EniyanLRS_143 Start: 69783, Stop: 69649, Start Num: 31
Candidate Starts for EniyanLRS_143:
(Start: 31 @69783 has 78 MA's), (43, 69699),

Gene: EricB_93 Start: 48431, Stop: 48303, Start Num: 29
Candidate Starts for EricB_93:
(Start: 29 @48431 has 39 MA's), (32, 48419), (Start: 33 @48413 has 4 MA's), (37, 48377), (45, 48332),

Gene: Et2Brutus_97 Start: 49951, Stop: 49823, Start Num: 30
Candidate Starts for Et2Brutus_97:
(1, 50311), (13, 50026), (16, 50017), (18, 50008), (26, 49963), (Start: 30 @49951 has 28 MA's), (32,
49939), (Start: 33 @49933 has 4 MA's),

Gene: Expelliarmus_90 Start: 48006, Stop: 47866, Start Num: 31
Candidate Starts for Expelliarmus_90:
(7, 48135), (11, 48096), (Start: 31 @48006 has 78 MA's), (45, 47907),

Gene: Faith1_119 Start: 65973, Stop: 65833, Start Num: 31
Candidate Starts for Faith1_119:
(Start: 31 @65973 has 78 MA's), (Start: 33 @65958 has 4 MA's), (53, 65847),

Gene: FarmResident_131 Start: 67235, Stop: 67095, Start Num: 31

Candidate Starts for FarmResident_131:

(Start: 31 @67235 has 78 MA's), (Start: 33 @67220 has 4 MA's), (35, 67190), (44, 67139), (47, 67130), (53, 67109),

Gene: Finemlucis_119 Start: 67003, Stop: 66863, Start Num: 31

Candidate Starts for Finemlucis_119:

(Start: 31 @67003 has 78 MA's), (Start: 33 @66988 has 4 MA's), (53, 66877),

Gene: ForGetIt_81 Start: 46944, Stop: 46804, Start Num: 31

Candidate Starts for ForGetIt_81:

(Start: 31 @46944 has 78 MA's), (Start: 33 @46929 has 4 MA's), (51, 46824),

Gene: Gabriela_120 Start: 65218, Stop: 65078, Start Num: 31

Candidate Starts for Gabriela_120:

(Start: 31 @65218 has 78 MA's), (Start: 33 @65203 has 4 MA's), (53, 65092),

Gene: Garak_99 Start: 49559, Stop: 49431, Start Num: 29

Candidate Starts for Garak_99:

(Start: 29 @49559 has 39 MA's), (32, 49547), (Start: 33 @49541 has 4 MA's), (37, 49505),

Gene: Gardann_120 Start: 65895, Stop: 65755, Start Num: 31

Candidate Starts for Gardann_120:

(Start: 31 @65895 has 78 MA's), (Start: 33 @65880 has 4 MA's), (53, 65769),

Gene: GaugeLDP_88 Start: 50406, Stop: 50278, Start Num: 30

Candidate Starts for GaugeLDP_88:

(24, 50436), (Start: 30 @50406 has 28 MA's), (Start: 33 @50388 has 4 MA's), (37, 50352),

Gene: George_74 Start: 46907, Stop: 46767, Start Num: 31

Candidate Starts for George_74:

(Start: 31 @46907 has 78 MA's), (Start: 33 @46892 has 4 MA's), (51, 46787),

Gene: Ghouboy_80 Start: 46910, Stop: 46770, Start Num: 31

Candidate Starts for Ghouboy_80:

(4, 47072), (10, 47006), (11, 47000), (15, 46982), (Start: 31 @46910 has 78 MA's), (Start: 33 @46895 has 4 MA's), (51, 46790),

Gene: Gladiator_94 Start: 49279, Stop: 49151, Start Num: 29

Candidate Starts for Gladiator_94:

(Start: 29 @49279 has 39 MA's), (32, 49267), (Start: 33 @49261 has 4 MA's), (37, 49225),

Gene: Groundhog_90 Start: 48062, Stop: 47922, Start Num: 31

Candidate Starts for Groundhog_90:

(7, 48191), (11, 48152), (Start: 31 @48062 has 78 MA's), (45, 47963),

Gene: Gruunaga_98 Start: 49235, Stop: 49107, Start Num: 29

Candidate Starts for Gruunaga_98:

(Start: 29 @49235 has 39 MA's), (32, 49223), (Start: 33 @49217 has 4 MA's), (37, 49181),

Gene: GuuelaD_118 Start: 66157, Stop: 66017, Start Num: 31

Candidate Starts for GuuelaD_118:

(Start: 31 @66157 has 78 MA's), (Start: 33 @66142 has 4 MA's), (35, 66112), (53, 66031),

Gene: Hammer_98 Start: 48932, Stop: 48804, Start Num: 29
Candidate Starts for Hammer_98:
(Start: 29 @48932 has 39 MA's), (32, 48920), (Start: 33 @48914 has 4 MA's), (37, 48878),

Gene: Hanray_94 Start: 50560, Stop: 50432, Start Num: 30
Candidate Starts for Hanray_94:
(Start: 30 @50560 has 28 MA's), (Start: 33 @50542 has 4 MA's), (37, 50506),

Gene: Helmet_99 Start: 49559, Stop: 49431, Start Num: 29
Candidate Starts for Helmet_99:
(Start: 29 @49559 has 39 MA's), (32, 49547), (Start: 33 @49541 has 4 MA's), (37, 49505),

Gene: Hexamo_97 Start: 49100, Stop: 48972, Start Num: 29
Candidate Starts for Hexamo_97:
(Start: 29 @49100 has 39 MA's), (32, 49088), (Start: 33 @49082 has 4 MA's), (37, 49046),

Gene: Holec_95 Start: 50573, Stop: 50445, Start Num: 30
Candidate Starts for Holec_95:
(Start: 30 @50573 has 28 MA's), (Start: 33 @50555 has 4 MA's), (37, 50519),

Gene: Hoot_90 Start: 46748, Stop: 46620, Start Num: 29
Candidate Starts for Hoot_90:
(Start: 29 @46748 has 39 MA's), (32, 46736), (Start: 33 @46730 has 4 MA's), (37, 46694), (45, 46649),

Gene: HortumSL17_97 Start: 50607, Stop: 50479, Start Num: 30
Candidate Starts for HortumSL17_97:
(Start: 30 @50607 has 28 MA's), (Start: 33 @50589 has 4 MA's), (37, 50553),

Gene: HuhtaEnerson15_78 Start: 46668, Stop: 46513, Start Num: 31
Candidate Starts for HuhtaEnerson15_78:
(Start: 31 @46668 has 78 MA's), (Start: 33 @46653 has 4 MA's), (51, 46548),

Gene: Hutc2_94 Start: 48841, Stop: 48713, Start Num: 30
Candidate Starts for Hutc2_94:
(1, 49201), (13, 48916), (16, 48907), (18, 48898), (26, 48853), (Start: 30 @48841 has 28 MA's), (32, 48829), (Start: 33 @48823 has 4 MA's),

Gene: Indra_100 Start: 49560, Stop: 49432, Start Num: 29
Candidate Starts for Indra_100:
(Start: 29 @49560 has 39 MA's), (32, 49548), (Start: 33 @49542 has 4 MA's), (37, 49506),

Gene: Isiphiwo_92 Start: 48650, Stop: 48522, Start Num: 29
Candidate Starts for Isiphiwo_92:
(Start: 29 @48650 has 39 MA's), (32, 48638), (Start: 33 @48632 has 4 MA's), (37, 48596),

Gene: Itos_121 Start: 64879, Stop: 64739, Start Num: 31
Candidate Starts for Itos_121:
(Start: 31 @64879 has 78 MA's), (Start: 33 @64864 has 4 MA's), (53, 64753),

Gene: Jabiru_79 Start: 46164, Stop: 46024, Start Num: 31
Candidate Starts for Jabiru_79:
(Start: 31 @46164 has 78 MA's), (Start: 33 @46149 has 4 MA's), (51, 46044),

Gene: Jabith_97 Start: 50149, Stop: 50021, Start Num: 30
Candidate Starts for Jabith_97:
(1, 50509), (13, 50224), (16, 50215), (18, 50206), (26, 50161), (Start: 30 @50149 has 28 MA's), (32, 50137), (Start: 33 @50131 has 4 MA's),

Gene: Jeffabunny_86 Start: 45703, Stop: 45575, Start Num: 29
Candidate Starts for Jeffabunny_86:
(Start: 29 @45703 has 39 MA's), (32, 45691), (Start: 33 @45685 has 4 MA's), (37, 45649),

Gene: JewelBug_87 Start: 47227, Stop: 47099, Start Num: 30
Candidate Starts for JewelBug_87:
(21, 47275), (Start: 28 @47233 has 1 MA's), (Start: 30 @47227 has 28 MA's), (32, 47215), (Start: 33 @47209 has 4 MA's), (37, 47173), (45, 47128),

Gene: Jiawan_94 Start: 50590, Stop: 50462, Start Num: 30
Candidate Starts for Jiawan_94:
(Start: 30 @50590 has 28 MA's), (Start: 33 @50572 has 4 MA's), (37, 50536),

Gene: Jobypre_119 Start: 65998, Stop: 65858, Start Num: 31
Candidate Starts for Jobypre_119:
(Start: 31 @65998 has 78 MA's), (Start: 33 @65983 has 4 MA's), (35, 65953), (47, 65893), (50, 65881), (53, 65872),

Gene: JoeDirt_115 Start: 64619, Stop: 64479, Start Num: 31
Candidate Starts for JoeDirt_115:
(Start: 31 @64619 has 78 MA's), (Start: 33 @64604 has 4 MA's), (35, 64574), (53, 64493),

Gene: Jordennis_93 Start: 49131, Stop: 49003, Start Num: 30
Candidate Starts for Jordennis_93:
(21, 49179), (Start: 28 @49137 has 1 MA's), (Start: 30 @49131 has 28 MA's), (32, 49119), (Start: 33 @49113 has 4 MA's), (37, 49077), (45, 49032),

Gene: Jovo_78 Start: 47200, Stop: 47060, Start Num: 31
Candidate Starts for Jovo_78:
(Start: 31 @47200 has 78 MA's), (Start: 33 @47185 has 4 MA's), (51, 47080),

Gene: Jubie_118 Start: 66133, Stop: 65993, Start Num: 31
Candidate Starts for Jubie_118:
(Start: 31 @66133 has 78 MA's), (Start: 33 @66118 has 4 MA's), (35, 66088), (47, 66028), (50, 66016), (53, 66007),

Gene: Kahlid_120 Start: 66180, Stop: 66040, Start Num: 31
Candidate Starts for Kahlid_120:
(Start: 31 @66180 has 78 MA's), (Start: 33 @66165 has 4 MA's), (53, 66054),

Gene: Kazan_96 Start: 48901, Stop: 48773, Start Num: 29
Candidate Starts for Kazan_96:
(Start: 29 @48901 has 39 MA's), (32, 48889), (Start: 33 @48883 has 4 MA's), (37, 48847), (45, 48802),

Gene: Kipper29_95 Start: 48912, Stop: 48778, Start Num: 28
Candidate Starts for Kipper29_95:
(21, 48954), (Start: 28 @48912 has 1 MA's), (Start: 30 @48906 has 28 MA's), (32, 48894), (Start: 33 @48888 has 4 MA's), (37, 48852), (45, 48807),

Gene: Koko_99 Start: 49949, Stop: 49821, Start Num: 29

Candidate Starts for Koko_99:

(Start: 29 @49949 has 39 MA's), (32, 49937), (Start: 33 @49931 has 4 MA's), (37, 49895),

Gene: Kropertea_125 Start: 67245, Stop: 67105, Start Num: 31

Candidate Starts for Kropertea_125:

(Start: 31 @67245 has 78 MA's), (Start: 33 @67230 has 4 MA's), (44, 67149), (47, 67140), (53, 67119),

Gene: Lev2_80 Start: 46553, Stop: 46413, Start Num: 31

Candidate Starts for Lev2_80:

(Start: 31 @46553 has 78 MA's), (Start: 33 @46538 has 4 MA's), (51, 46433),

Gene: Lewan_122 Start: 66675, Stop: 66550, Start Num: 33

Candidate Starts for Lewan_122:

(Start: 31 @66690 has 78 MA's), (Start: 33 @66675 has 4 MA's), (35, 66645), (53, 66564),

Gene: LilDestine_117 Start: 65350, Stop: 65210, Start Num: 31

Candidate Starts for LilDestine_117:

(Start: 31 @65350 has 78 MA's), (Start: 33 @65335 has 4 MA's), (53, 65224),

Gene: Lilbunny_94 Start: 47807, Stop: 47679, Start Num: 29

Candidate Starts for Lilbunny_94:

(Start: 29 @47807 has 39 MA's), (32, 47795), (Start: 33 @47789 has 4 MA's), (37, 47753),

Gene: Lilleskat_93 Start: 50561, Stop: 50433, Start Num: 30

Candidate Starts for Lilleskat_93:

(Start: 30 @50561 has 28 MA's), (Start: 33 @50543 has 4 MA's), (37, 50507),

Gene: LittleCherry_78 Start: 46259, Stop: 46119, Start Num: 31

Candidate Starts for LittleCherry_78:

(Start: 31 @46259 has 78 MA's), (Start: 33 @46244 has 4 MA's), (51, 46139),

Gene: Loadrie_121 Start: 66722, Stop: 66582, Start Num: 31

Candidate Starts for Loadrie_121:

(Start: 31 @66722 has 78 MA's), (Start: 33 @66707 has 4 MA's), (53, 66596),

Gene: Lucyedi_92 Start: 50524, Stop: 50396, Start Num: 29

Candidate Starts for Lucyedi_92:

(Start: 29 @50524 has 39 MA's), (32, 50512), (Start: 33 @50506 has 4 MA's), (37, 50470), (45, 50425),

Gene: Lumos_118 Start: 65995, Stop: 65855, Start Num: 31

Candidate Starts for Lumos_118:

(Start: 31 @65995 has 78 MA's), (Start: 33 @65980 has 4 MA's), (35, 65950), (47, 65890), (50, 65878), (53, 65869),

Gene: Maminiaina_95 Start: 50479, Stop: 50351, Start Num: 30

Candidate Starts for Maminiaina_95:

(2, 50716), (17, 50542), (Start: 30 @50479 has 28 MA's), (Start: 33 @50461 has 4 MA's), (37, 50425),

Gene: MaryV_136 Start: 67629, Stop: 67495, Start Num: 31

Candidate Starts for MaryV_136:

(Start: 31 @67629 has 78 MA's), (43, 67545),

Gene: McFly_95 Start: 49240, Stop: 49112, Start Num: 29
Candidate Starts for McFly_95:
(Start: 29 @49240 has 39 MA's), (32, 49228), (Start: 33 @49222 has 4 MA's), (37, 49186), (45, 49141),

Gene: Micasa_81 Start: 46924, Stop: 46769, Start Num: 31
Candidate Starts for Micasa_81:
(Start: 31 @46924 has 78 MA's), (Start: 33 @46909 has 4 MA's), (51, 46804),

Gene: Milcery_78 Start: 46553, Stop: 46413, Start Num: 31
Candidate Starts for Milcery_78:
(Start: 31 @46553 has 78 MA's), (Start: 33 @46538 has 4 MA's), (51, 46433),

Gene: Miley16_121 Start: 66665, Stop: 66525, Start Num: 31
Candidate Starts for Miley16_121:
(Start: 31 @66665 has 78 MA's), (Start: 33 @66650 has 4 MA's), (53, 66539),

Gene: MissWhite_89 Start: 47475, Stop: 47347, Start Num: 30
Candidate Starts for MissWhite_89:
(Start: 30 @47475 has 28 MA's), (32, 47463), (Start: 33 @47457 has 4 MA's),

Gene: MsGreen_119 Start: 65997, Stop: 65857, Start Num: 31
Candidate Starts for MsGreen_119:
(Start: 31 @65997 has 78 MA's), (Start: 33 @65982 has 4 MA's), (35, 65952), (47, 65892), (50, 65880),
(53, 65871),

Gene: MyraDee_83 Start: 45467, Stop: 45327, Start Num: 31
Candidate Starts for MyraDee_83:
(3, 45620), (6, 45599), (14, 45530), (Start: 31 @45467 has 78 MA's), (40, 45398),

Gene: Myxus_96 Start: 50607, Stop: 50479, Start Num: 30
Candidate Starts for Myxus_96:
(Start: 30 @50607 has 28 MA's), (Start: 33 @50589 has 4 MA's), (37, 50553),

Gene: Nanosmite_156 Start: 75027, Stop: 74887, Start Num: 31
Candidate Starts for Nanosmite_156:
(Start: 31 @75027 has 78 MA's), (Start: 33 @75012 has 4 MA's), (36, 74979), (43, 74943), (51, 74907),
(53, 74901),

Gene: NearlyHeadless_94 Start: 48124, Stop: 47984, Start Num: 31
Candidate Starts for NearlyHeadless_94:
(7, 48253), (11, 48214), (Start: 31 @48124 has 78 MA's), (45, 48025),

Gene: Neeharika16_94 Start: 48993, Stop: 48865, Start Num: 29
Candidate Starts for Neeharika16_94:
(Start: 29 @48993 has 39 MA's), (32, 48981), (Start: 33 @48975 has 4 MA's), (37, 48939), (45, 48894),

Gene: Netyap_119 Start: 66379, Stop: 66239, Start Num: 31
Candidate Starts for Netyap_119:
(Start: 31 @66379 has 78 MA's), (Start: 33 @66364 has 4 MA's), (53, 66253),

Gene: Newrala_94 Start: 49339, Stop: 49211, Start Num: 29
Candidate Starts for Newrala_94:

(Start: 29 @49339 has 39 MA's), (32, 49327), (Start: 33 @49321 has 4 MA's), (37, 49285), (45, 49240),

Gene: Nicholasp3_121 Start: 65880, Stop: 65755, Start Num: 33

Candidate Starts for Nicholasp3_121:

(Start: 31 @65895 has 78 MA's), (Start: 33 @65880 has 4 MA's), (53, 65769),

Gene: Onglai_94 Start: 48762, Stop: 48634, Start Num: 30

Candidate Starts for Onglai_94:

(Start: 30 @48762 has 28 MA's), (Start: 33 @48744 has 4 MA's), (37, 48708),

Gene: PYPDinur_131 Start: 68116, Stop: 67976, Start Num: 31

Candidate Starts for PYPDinur_131:

(25, 68137), (Start: 29 @68122 has 39 MA's), (Start: 31 @68116 has 78 MA's), (Start: 33 @68101 has 4 MA's), (35, 68071), (47, 68011), (53, 67990),

Gene: PackMan_91 Start: 48521, Stop: 48393, Start Num: 30

Candidate Starts for PackMan_91:

(Start: 30 @48521 has 28 MA's), (Start: 33 @48503 has 4 MA's), (37, 48467),

Gene: PainterBoy_91 Start: 50235, Stop: 50107, Start Num: 29

Candidate Starts for PainterBoy_91:

(Start: 29 @50235 has 39 MA's), (32, 50223), (Start: 33 @50217 has 4 MA's), (37, 50181), (45, 50136),

Gene: Phaeder_96 Start: 50482, Stop: 50354, Start Num: 30

Candidate Starts for Phaeder_96:

(Start: 30 @50482 has 28 MA's), (Start: 33 @50464 has 4 MA's), (37, 50428),

Gene: Phillis_90 Start: 47137, Stop: 46997, Start Num: 31

Candidate Starts for Phillis_90:

(11, 47227), (Start: 31 @47137 has 78 MA's), (36, 47089), (41, 47062),

Gene: Phlei_73 Start: 46291, Stop: 46163, Start Num: 29

Candidate Starts for Phlei_73:

(Start: 29 @46291 has 39 MA's), (Start: 33 @46273 has 4 MA's), (34, 46252), (42, 46210), (49, 46180), (52, 46171),

Gene: Phlorence_78 Start: 46297, Stop: 46157, Start Num: 31

Candidate Starts for Phlorence_78:

(23, 46339), (Start: 31 @46297 has 78 MA's), (Start: 33 @46282 has 4 MA's), (51, 46177),

Gene: Phonnegut_96 Start: 50494, Stop: 50366, Start Num: 30

Candidate Starts for Phonnegut_96:

(Start: 30 @50494 has 28 MA's), (Start: 33 @50476 has 4 MA's), (37, 50440),

Gene: PickleBack_81 Start: 46751, Stop: 46611, Start Num: 31

Candidate Starts for PickleBack_81:

(Start: 31 @46751 has 78 MA's), (Start: 33 @46736 has 4 MA's), (51, 46631),

Gene: Pioneer_96 Start: 50494, Stop: 50366, Start Num: 30

Candidate Starts for Pioneer_96:

(Start: 30 @50494 has 28 MA's), (Start: 33 @50476 has 4 MA's), (37, 50440),

Gene: Pmask_94 Start: 49540, Stop: 49412, Start Num: 29

Candidate Starts for Pmask_94:

(Start: 29 @49540 has 39 MA's), (32, 49528), (Start: 33 @49522 has 4 MA's), (37, 49486), (45, 49441),

Gene: Poochiewood_112 Start: 64858, Stop: 64718, Start Num: 31

Candidate Starts for Poochiewood_112:

(Start: 31 @64858 has 78 MA's), (Start: 33 @64843 has 4 MA's), (35, 64813), (53, 64732),

Gene: Priamo_95 Start: 48583, Stop: 48455, Start Num: 29

Candidate Starts for Priamo_95:

(Start: 29 @48583 has 39 MA's), (32, 48571), (Start: 33 @48565 has 4 MA's), (37, 48529), (45, 48484),

Gene: Quby_130 Start: 67381, Stop: 67241, Start Num: 31

Candidate Starts for Quby_130:

(Start: 31 @67381 has 78 MA's), (Start: 33 @67366 has 4 MA's), (35, 67336), (44, 67285), (47, 67276), (53, 67255),

Gene: Rifter_98 Start: 48727, Stop: 48599, Start Num: 29

Candidate Starts for Rifter_98:

(Start: 29 @48727 has 39 MA's), (32, 48715), (Start: 33 @48709 has 4 MA's), (37, 48673),

Gene: Roary_95 Start: 48261, Stop: 48121, Start Num: 31

Candidate Starts for Roary_95:

(7, 48390), (9, 48366), (11, 48351), (Start: 31 @48261 has 78 MA's),

Gene: Roksolana_98 Start: 49443, Stop: 49315, Start Num: 29

Candidate Starts for Roksolana_98:

(Start: 29 @49443 has 39 MA's), (32, 49431), (Start: 33 @49425 has 4 MA's), (37, 49389),

Gene: RyeScarlet_97 Start: 50480, Stop: 50352, Start Num: 30

Candidate Starts for RyeScarlet_97:

(Start: 30 @50480 has 28 MA's), (Start: 33 @50462 has 4 MA's), (37, 50426),

Gene: Sachima_92 Start: 50508, Stop: 50380, Start Num: 30

Candidate Starts for Sachima_92:

(Start: 30 @50508 has 28 MA's), (Start: 33 @50490 has 4 MA's), (37, 50454),

Gene: Saintus_88 Start: 44989, Stop: 44849, Start Num: 31

Candidate Starts for Saintus_88:

(7, 45118), (11, 45079), (Start: 31 @44989 has 78 MA's), (45, 44890),

Gene: Salz_93 Start: 48763, Stop: 48635, Start Num: 30

Candidate Starts for Salz_93:

(1, 49123), (13, 48838), (16, 48829), (18, 48820), (26, 48775), (Start: 30 @48763 has 28 MA's), (32, 48751), (Start: 33 @48745 has 4 MA's),

Gene: Sarshaun_122 Start: 67162, Stop: 67022, Start Num: 31

Candidate Starts for Sarshaun_122:

(Start: 31 @67162 has 78 MA's), (Start: 33 @67147 has 4 MA's), (53, 67036),

Gene: Scherzo_94 Start: 50525, Stop: 50397, Start Num: 30

Candidate Starts for Scherzo_94:

(Start: 30 @50525 has 28 MA's), (Start: 33 @50507 has 4 MA's), (37, 50471),

Gene: SheaKeira_87 Start: 48886, Stop: 48743, Start Num: 30

Candidate Starts for SheaKeira_87:

(12, 48964), (Start: 30 @48886 has 28 MA's), (32, 48874), (Start: 33 @48868 has 4 MA's), (38, 48826), (42, 48802), (46, 48781), (47, 48778), (53, 48757),

Gene: Sheng711_132 Start: 67571, Stop: 67431, Start Num: 31

Candidate Starts for Sheng711_132:

(25, 67592), (Start: 29 @67577 has 39 MA's), (Start: 31 @67571 has 78 MA's), (Start: 33 @67556 has 4 MA's), (35, 67526), (44, 67475), (47, 67466), (53, 67445),

Gene: Smeadley_93 Start: 48128, Stop: 47988, Start Num: 31

Candidate Starts for Smeadley_93:

(7, 48257), (11, 48218), (Start: 31 @48128 has 78 MA's), (45, 48029),

Gene: SmellyB_95 Start: 48895, Stop: 48767, Start Num: 29

Candidate Starts for SmellyB_95:

(Start: 29 @48895 has 39 MA's), (32, 48883), (Start: 33 @48877 has 4 MA's), (37, 48841), (45, 48796),

Gene: Snenia_117 Start: 65999, Stop: 65859, Start Num: 31

Candidate Starts for Snenia_117:

(Start: 31 @65999 has 78 MA's), (Start: 33 @65984 has 4 MA's), (35, 65954), (47, 65894), (50, 65882), (53, 65873),

Gene: Soap141_121 Start: 67162, Stop: 67022, Start Num: 31

Candidate Starts for Soap141_121:

(Start: 31 @67162 has 78 MA's), (Start: 33 @67147 has 4 MA's), (53, 67036),

Gene: Stephig9_94 Start: 48479, Stop: 48339, Start Num: 31

Candidate Starts for Stephig9_94:

(7, 48608), (11, 48569), (Start: 31 @48479 has 78 MA's), (45, 48380),

Gene: Sunhee_92 Start: 48053, Stop: 47922, Start Num: 32

Candidate Starts for Sunhee_92:

(12, 48143), (Start: 31 @48062 has 78 MA's), (32, 48053), (Start: 33 @48047 has 4 MA's), (36, 48014), (51, 47942),

Gene: SuperAwesome_95 Start: 49579, Stop: 49451, Start Num: 29

Candidate Starts for SuperAwesome_95:

(Start: 29 @49579 has 39 MA's), (32, 49567), (Start: 33 @49561 has 4 MA's), (37, 49525), (45, 49480),

Gene: SuperCallie99_92 Start: 49151, Stop: 49023, Start Num: 29

Candidate Starts for SuperCallie99_92:

(Start: 29 @49151 has 39 MA's), (32, 49139), (Start: 33 @49133 has 4 MA's), (37, 49097),

Gene: SydNat_79 Start: 46919, Stop: 46779, Start Num: 31

Candidate Starts for SydNat_79:

(4, 47081), (10, 47015), (11, 47009), (15, 46991), (Start: 31 @46919 has 78 MA's), (Start: 33 @46904 has 4 MA's), (51, 46799),

Gene: Tarynearal_80 Start: 46707, Stop: 46567, Start Num: 31

Candidate Starts for Tarynearal_80:

(Start: 31 @46707 has 78 MA's), (Start: 33 @46692 has 4 MA's), (51, 46587),

Gene: Temprado_99 Start: 49559, Stop: 49431, Start Num: 29
Candidate Starts for Temprado_99:
(Start: 29 @49559 has 39 MA's), (32, 49547), (Start: 33 @49541 has 4 MA's), (37, 49505),

Gene: Tiger_78 Start: 46218, Stop: 46078, Start Num: 31
Candidate Starts for Tiger_78:
(23, 46260), (Start: 31 @46218 has 78 MA's), (Start: 33 @46203 has 4 MA's), (51, 46098),

Gene: ToneTone_94 Start: 49110, Stop: 48982, Start Num: 29
Candidate Starts for ToneTone_94:
(Start: 29 @49110 has 39 MA's), (32, 49098), (Start: 33 @49092 has 4 MA's), (37, 49056),

Gene: Tourach_122 Start: 67517, Stop: 67377, Start Num: 31
Candidate Starts for Tourach_122:
(Start: 31 @67517 has 78 MA's), (Start: 33 @67502 has 4 MA's), (35, 67472), (44, 67421), (47, 67412),
(53, 67391),

Gene: TriFive_118 Start: 66111, Stop: 65971, Start Num: 31
Candidate Starts for TriFive_118:
(Start: 31 @66111 has 78 MA's), (Start: 33 @66096 has 4 MA's), (35, 66066), (47, 66006), (50, 65994),
(53, 65985),

Gene: Tubs_96 Start: 50482, Stop: 50354, Start Num: 30
Candidate Starts for Tubs_96:
(Start: 30 @50482 has 28 MA's), (Start: 33 @50464 has 4 MA's), (37, 50428),

Gene: Tucker_98 Start: 49313, Stop: 49185, Start Num: 29
Candidate Starts for Tucker_98:
(Start: 29 @49313 has 39 MA's), (32, 49301), (Start: 33 @49295 has 4 MA's), (37, 49259),

Gene: Twigg_78 Start: 46673, Stop: 46533, Start Num: 31
Candidate Starts for Twigg_78:
(Start: 31 @46673 has 78 MA's), (Start: 33 @46658 has 4 MA's), (51, 46553),

Gene: Ugenie5_83 Start: 47969, Stop: 47841, Start Num: 30
Candidate Starts for Ugenie5_83:
(Start: 30 @47969 has 28 MA's), (Start: 33 @47951 has 4 MA's), (37, 47915),

Gene: Underpass_110 Start: 60916, Stop: 60791, Start Num: 33
Candidate Starts for Underpass_110:
(Start: 33 @60916 has 4 MA's), (53, 60805),

Gene: Vetrrix_120 Start: 66805, Stop: 66665, Start Num: 31
Candidate Starts for Vetrrix_120:
(Start: 31 @66805 has 78 MA's), (Start: 33 @66790 has 4 MA's), (53, 66679),

Gene: VohminGhazi_95 Start: 48896, Stop: 48768, Start Num: 29
Candidate Starts for VohminGhazi_95:
(Start: 29 @48896 has 39 MA's), (32, 48884), (Start: 33 @48878 has 4 MA's), (37, 48842), (45, 48797),

Gene: Wamburgexpress_114 Start: 64020, Stop: 63880, Start Num: 31
Candidate Starts for Wamburgexpress_114:
(Start: 31 @64020 has 78 MA's), (Start: 33 @64005 has 4 MA's), (35, 63975), (53, 63894),

Gene: Wigglewiggles_121 Start: 66401, Stop: 66261, Start Num: 31
Candidate Starts for Wigglewiggles_121:
(Start: 31 @66401 has 78 MA's), (Start: 33 @66386 has 4 MA's), (53, 66275),

Gene: Wiks_97 Start: 49190, Stop: 49062, Start Num: 29
Candidate Starts for Wiks_97:
(Start: 29 @49190 has 39 MA's), (32, 49178), (Start: 33 @49172 has 4 MA's), (37, 49136),

Gene: Wildcat_150 Start: 69522, Stop: 69388, Start Num: 31
Candidate Starts for Wildcat_150:
(Start: 31 @69522 has 78 MA's), (43, 69438),

Gene: Wilder_121 Start: 66019, Stop: 65894, Start Num: 33
Candidate Starts for Wilder_121:
(Start: 31 @66034 has 78 MA's), (Start: 33 @66019 has 4 MA's), (53, 65908),

Gene: Winky_121 Start: 66666, Stop: 66526, Start Num: 31
Candidate Starts for Winky_121:
(Start: 31 @66666 has 78 MA's), (Start: 33 @66651 has 4 MA's), (53, 66540),

Gene: Yokurt_97 Start: 49190, Stop: 49062, Start Num: 29
Candidate Starts for Yokurt_97:
(Start: 29 @49190 has 39 MA's), (32, 49178), (Start: 33 @49172 has 4 MA's), (37, 49136),

Gene: Zaka_98 Start: 49190, Stop: 49062, Start Num: 29
Candidate Starts for Zaka_98:
(Start: 29 @49190 has 39 MA's), (32, 49178), (Start: 33 @49172 has 4 MA's), (37, 49136),

Gene: Zakai_123 Start: 66361, Stop: 66236, Start Num: 33
Candidate Starts for Zakai_123:
(Start: 31 @66376 has 78 MA's), (Start: 33 @66361 has 4 MA's), (53, 66250),

Gene: Zaria_117 Start: 64101, Stop: 63961, Start Num: 31
Candidate Starts for Zaria_117:
(Start: 31 @64101 has 78 MA's), (Start: 33 @64086 has 4 MA's), (35, 64056), (53, 63975),

Gene: ZhongYanYuan_118 Start: 65768, Stop: 65628, Start Num: 31
Candidate Starts for ZhongYanYuan_118:
(Start: 31 @65768 has 78 MA's), (Start: 33 @65753 has 4 MA's), (53, 65642),

Gene: Zolita_78 Start: 46902, Stop: 46762, Start Num: 31
Candidate Starts for Zolita_78:
(4, 47064), (10, 46998), (11, 46992), (15, 46974), (Start: 31 @46902 has 78 MA's), (Start: 33 @46887 has 4 MA's), (51, 46782),

Gene: Zulu_99 Start: 49567, Stop: 49439, Start Num: 29
Candidate Starts for Zulu_99:
(Start: 29 @49567 has 39 MA's), (32, 49555), (Start: 33 @49549 has 4 MA's), (37, 49513),