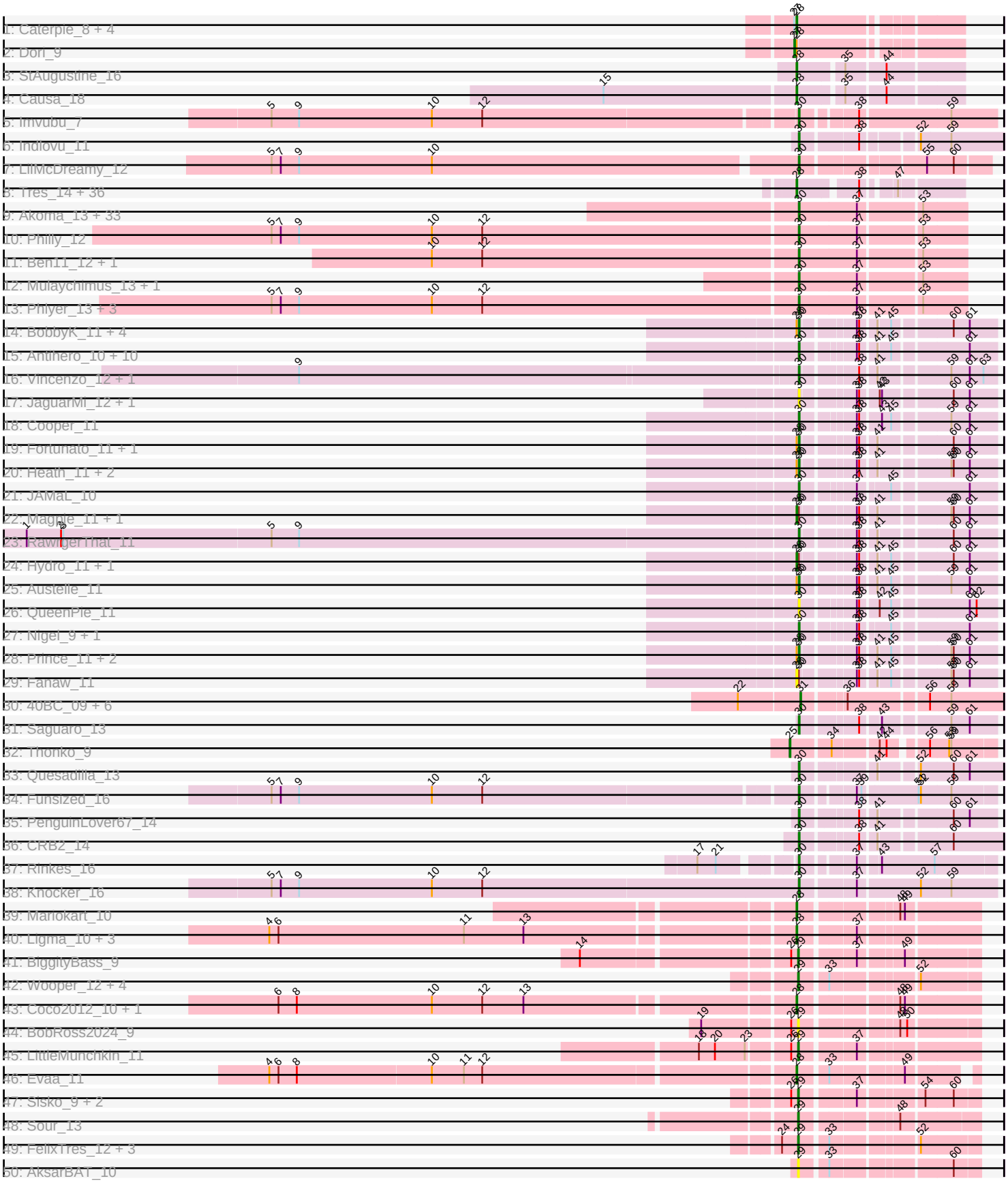
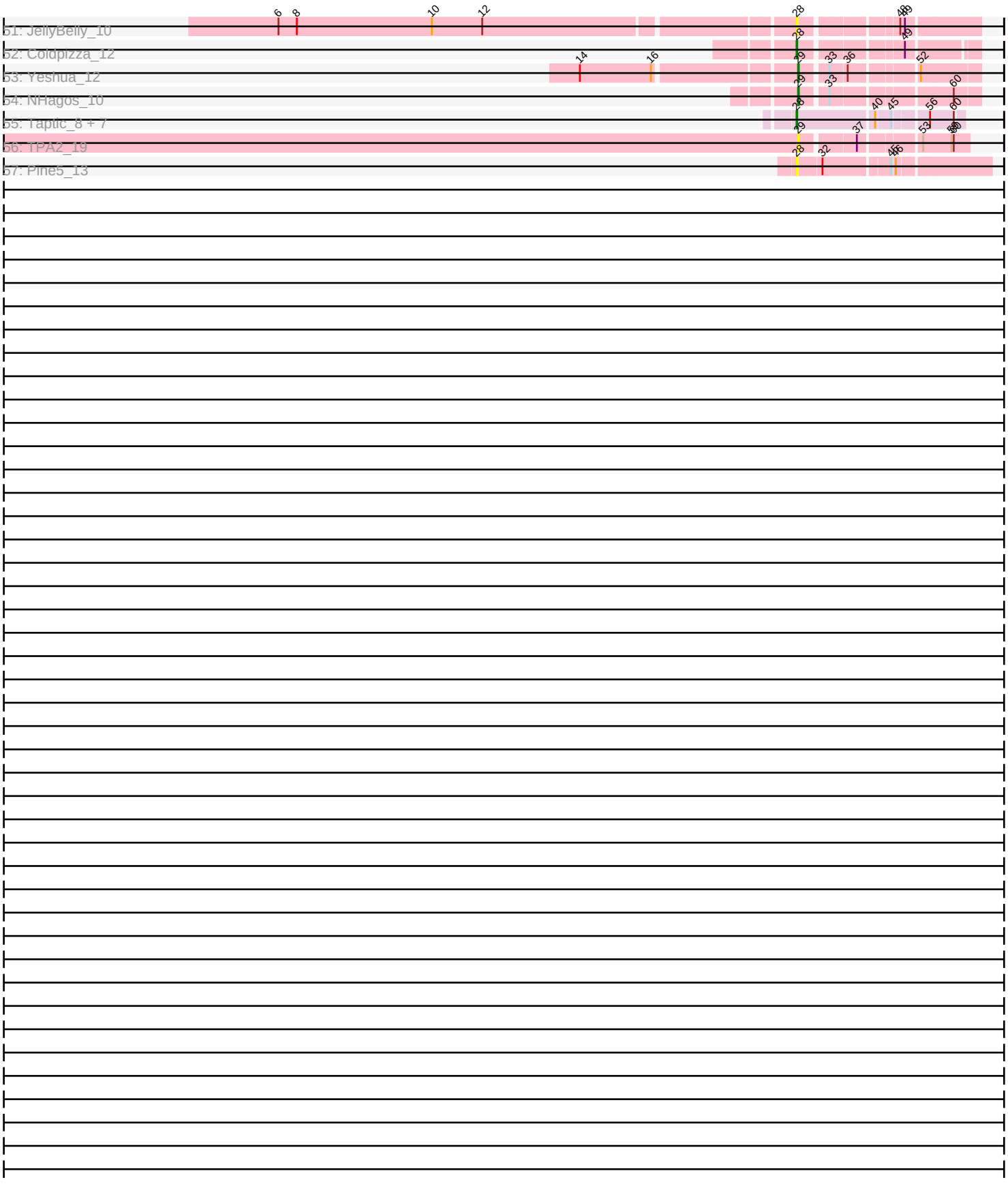
Pham 347291


1: Caterpie_8 + 4
2: Dori_9
3: StAugustine_16
4: Causa_18
5: Imvubu_7
6: Indlovu_11
7: LilMcDreamy_12
8: Tres_14 + 36
9: Akoma_13 + 33
10: Philly_12
11: Ben11_12 + 1
12: Mulaychimus_13 + 1
13: Phlyer_13 + 3
14: BobbyK_11 + 4
15: Antihero_10 + 10
16: Vincenzo_12 + 1
17: JaguarMi_12 + 1
18: Cooper_11
19: Fortunato_11 + 1
20: Heath_11 + 2
21: JAMaL_10
22: Maggie_11 + 1
23: Rawdgerthat_11
24: Hydro_11 + 1
25: Austelle_11
26: QueenPie_11
27: Nigel_9 + 1
28: Prince_11 + 2
29: Fanaw_11
30: 40BC_09 + 6
31: Saguaro_13
32: Thonko_9
33: Quesadilla_13
34: Funsized_16
35: PenguinLover67_14
36: CRB2_14
37: Rinkes_16
38: Knocker_16
39: Manokart_10
40: Ligma_10 + 3
41: BigghyBass_9
42: Wooper_12 + 4
43: Coco2012_10 + 1
44: BobRoss2024_9
45: LittleMunchkin_11
46: Evaa_11
47: Sisko_9 + 2
48: Sour_13
49: FelixTres_12 + 3
50: AksarBAT_10

Pham 347291


51: JellyBelly_10
52: Coldpizza_12
53: Yeshua_12
54: NHagos_10
55: Taptic_8 + 7
56: TPA2_19
57: Pine5_13

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 347291 Report

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

Pham number 347291 has 185 members, 29 are drafts.

Phages represented in each track:
• Track 1 : Caterpie_8, JohnLord_9, Mask_9, Mao1_8, Sejanus_9
• Track 2 : Dori_9
• Track 3 : StAugustine_16
• Track 4 : Causa_18
• Track 5 : Imvubu_7
• Track 6 : Indlovu_11
• Track 7 : LilMcDreamy_12
• Track 8 : Tres_14, Godines_14, Brownie5_14, Arbiter_14, LizLemon_14, Kheth_14, Kolhan_14, Rhinoforte_14, Opia_14, Ares_14, Rosebush_14, Eaglehorse_14, PrinceCharming_14, Glass_14, LilSmirk_14, ItsyBitsy1_14, Allegro_14, Laurie_14, Faze9_14, MasterPo_14, Lephleur_14, FrenchFry_14, Bananafish_14, Vic9_00014, TA17A_14, Calamitous_14, West99_14, Tinciduntsolum_15, Blocker23_14, Lars_14, Hedgerow_14, Holeinone_14, Kaleb_14, Phantasmagoria_14, Boyle_14, Sabella_14, Coffee_14
• Track 9 : Akoma_13, OrangeOswald_13, HarveySr_13, Jackstina_12, Neos5_13, Yinz_13, Tydolla_13, SynergyX_13, LestyG_13, Briakila_13, Corofin_13, Gadjet_14, TinyTerror_13, Olivio_12, Audrey_13, Glubnar_13, Baloo_13, SwainyDoc_13, Kronus_12, Devonte_13, Deenasa_13, SlippinJimmy_13, Mortcellus_12, Halfpint_12, Phayeta_13, Phaedrus_12, Casbah_12, Shenandoah_13, Athena_14, Kamiyu_13, Nozo_13, RagingRooster_13, MmasiCarm_13, ChaChing_13
• Track 10 : Philly_12
• Track 11 : Ben11_12, Abinghost_13
• Track 12 : Mulaychimus_13, Pipefish_13
• Track 13 : Phlyer_13, Heathcliff_13, GlenHope_14, Bernardo_13
• Track 14 : BobbyK_11, JoyceMaria_11, Hangman_11, Waleliano_11, VioletZ_11
• Track 15 : Antihero_10, LittleDigger_10, Poster_10, Lambano_10, Epah_10, ChrisnMich_10, Renkei_10, Hally898_10, GinPorsche_10, Nanao_10, Ahwei_10
• Track 16 : Vincenzo_12, AlanGrant_12
• Track 17 : JaguarMi_12, Xincheng_11
• Track 18 : Cooper_11
• Track 19 : Fortunato_11, Frederick_11
• Track 20 : Heath_11, Apex_10, Lolalove_11
• Track 21 : JAMaL_10
• Track 22 : Magpie_11, BrownCNA_12
• Track 23 : RawrgerThat_11
• Track 24 : Hydro_11, Zemanar_12
• Track 25 : Austelle_11

• Track 26 : QueenPie_11
• Track 27 : Nigel_9, Stinger_9
• Track 28 : Prince_11, Mudslide_11, Mithril_11
• Track 29 : Fanaw_11
• Track 30 : 40BC_09, Jolie1_09, ForDig_9, Minnow_9, 39HC_09, KayaCho_9, Hosp_07
• Track 31 : Saguaro_13
• Track 32 : Thonko_9
• Track 33 : Quesadilla_13
• Track 34 : Funsized_16
• Track 35 : PenguinLover67_14
• Track 36 : CRB2_14
• Track 37 : Rinkes_16
• Track 38 : Knocker_16
• Track 39 : Mariokart_10
• Track 40 : Ligma_10, Axumite_10, Shatter_10, Fresco_10
• Track 41 : BiggityBass_9
• Track 42 : Wooper_12, MakoManhole_12, CaiB_12, CloverMinnie_12, AnarQue_12
• Track 43 : Coco2012_10, CharlottesWeb_10
• Track 44 : BobRoss2024_9
• Track 45 : LittleMunchkin_11
• Track 46 : Evaa_11
• Track 47 : Sisko_9, Yago84_9, AnClar_9
• Track 48 : Sour_13
• Track 49 : FelixTres_12, TraderJ_12, MossRose_12, Blackpen_12
• Track 50 : AksarBAT_10
• Track 51 : JellyBelly_10
• Track 52 : Coldpizza_12
• Track 53 : Yeshua_12
• Track 54 : NHagos_10
• Track 55 : Taptic_8, Argie_9, D12_08, Megabear_8, Cepens_8, GodPhather_9, Jeon_8, PR_08
• Track 56 : TPA2_19
• Track 57 : Pine5_13

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

The start number called the most often in the published annotations is 30, it was called in 76 of the 156 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abinghost_13, Ahwei_10, Akoma_13, AlanGrant_12, Antihero_10, Apex_10, Athena_14, Audrey_13, Austelle_11, Baloo_13, Ben11_12, Bernardo_13, BobbyK_11, Briakila_13, CRB2_14, Casbah_12, ChaChing_13, ChrisnMich_10, Cooper_11, Corofin_13, Deenasa_13, Devonte_13, Epah_10, Fortunato_11, Frederick_11, Funsized_16, Gadjet_14, GinPorsche_10, GlenHope_14, Glubnar_13, Halfpint_12, Hally898_10, Hangman_11, HarveySr_13, Heath_11, Heathcliff_13, Imvubu_7, Indlovu_11, JAMaL_10, Jackstina_12, JaguarMi_12, JoyceMaria_11, Kamiyu_13, Knocker_16, Kronus_12, Lambano_10, LestyG_13, LilMcDreamy_12, LittleDigger_10, Lolalove_11, Mithril_11, MmasiCarm_13, Mortcellus_12,

Mudslide_11, Mulaychimus_13, Nanao_10, Neos5_13, Nigel_9, Nozo_13, Olivio_12, OrangeOswald_13, PenguinLover67_14, Phaedrus_12, Phayeta_13, Philly_12, Phlyer_13, Pipefish_13, Poster_10, Prince_11, QueenPie_11, Quesadilla_13, RagingRooster_13, RawrgerThat_11, Renkei_10, Rinkes_16, Saguaro_13, Shenandoah_13, SlippinJimmy_13, Stinger_9, SwainyDoc_13, SynergyX_13, TinyTerror_13, Tydolla_13, Vincenzo_12, VioletZ_11, Waleliano_11, Xincheng_11, Yinz_13,

Genes that have the "Most Annotated" start but do not call it:
• BrownCNA_12, Fanaw_11, Hydro_11, Magpie_11, Zemanar_12,

Genes that do not have the "Most Annotated" start:
• 39HC_09, 40BC_09, AksarBAT_10, Allegro_14, AnClar_9, AnarQue_12, Arbiter_14, Ares_14, Argie_9, Axumite_10, Bananafish_14, BiggityBass_9, Blackpen_12, Blocker23_14, BobRoss2024_9, Boyle_14, Brownie5_14, CaiB_12, Calamitous_14, Caterpie_8, Causa_18, Cepens_8, CharlottesWeb_10, CloverMinnie_12, Coco2012_10, Coffee_14, Coldpizza_12, D12_08, Dori_9, Eaglehorse_14, Evaa_11, Faze9_14, FelixTres_12, ForDig_9, FrenchFry_14, Fresco_10, Glass_14, GodPhather_9, Godines_14, Hedgerow_14, Holeinone_14, Hosp_07, ItsyBitsy1_14, JellyBelly_10, Jeon_8, JohnLord_9, Jolie1_09, Kaleb_14, KayaCho_9, Kheth_14, Kolhan_14, Lars_14, Laurie_14, Lephleur_14, Ligma_10, LilSmirk_14, LittleMunchkin_11, LizLemon_14, MakoManhole_12, Mao1_8, Mariokart_10, Mask_9, MasterPo_14, Megabear_8, Minnow_9, MossRose_12, NHagos_10, Opia_14, PR_08, Phantasmagoria_14, Pine5_13, PrinceCharming_14, Rhinoforte_14, Rosebush_14, Sabella_14, Sejanus_9, Shatter_10, Sisko_9, Sour_13, StAugustine_16, TA17A_14, TPA2_19, Taptic_8, Thonko_9, Tinciduntsolum_15, TraderJ_12, Tres_14, Vic9_00014, West99_14, Wooper_12, Yago84_9, Yeshua_12,

Summary by start number:

Start 25:
• Found in 1 of 185 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 156
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Thonko_9 (B8),

Start 27:
• Found in 6 of 185 (3.2%) of genes in pham
• Manual Annotations of this start: 1 of 156
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Dori_9 (AD),

Start 28:
• Found in 83 of 185 (44.9%) of genes in pham
• Manual Annotations of this start: 61 of 156
• Called 81.9% of time when present
• Phage (with cluster) where this start called: Allegro_14 (B2), Arbiter_14 (B2), Ares_14 (B2), Argie_9 (W), Axumite_10 (DR), Bananafish_14 (B2), Blocker23_14 (B2), Boyle_14 (B2), BrownCNA_12 (B4), Brownie5_14 (B2), Calamitous_14 (B2), Caterpie_8 (AD), Causa_18 (AI), Cepens_8 (W), CharlottesWeb_10 (DR), Coco2012_10 (DR), Coffee_14 (B2), Coldpizza_12 (DR), D12_08 (W), Eaglehorse_14 (B2), Evaa_11 (DR), Fanaw_11 (B4), Faze9_14 (B2), FrenchFry_14 (B2), Fresco_10 (DR), Glass_14 (B2), GodPhather_9 (W), Godines_14 (B2),

Hedgerow_14 (B2), Holeinone_14 (B2), Hydro_11 (B4), ItsyBitsy1_14 (B2), JellyBelly_10 (DR), Jeon_8 (W), JohnLord_9 (AD), Kaleb_14 (B2), Kheth_14 (B2), Kolhan_14 (B2), Lars_14 (B2), Laurie_14 (B2), Lephleur_14 (B2), Ligma_10 (DR), LilSmirk_14 (B2), LizLemon_14 (B2), Magpie_11 (B4), Mao1_8 (AD), Mariokart_10 (DR), Mask_9 (AD), MasterPo_14 (B2), Megabear_8 (W), Opia_14 (B2), PR_08 (W), Phantasmagoria_14 (B2), Pine5_13 (singleton), PrinceCharming_14 (B2), Rhinoforte_14 (B2), Rosebush_14 (B2), Sabella_14 (B2), Sejanus_9 (AD), Shatter_10 (DR), StAugustine_16 (AI), TA17A_14 (B2), Taptic_8 (W), Tinciduntsolum_15 (B2), Tres_14 (B2), Vic9_00014 (B2), West99_14 (B2), Zemanar_12 (B4),

Start 29:
• Found in 20 of 185 (10.8%) of genes in pham
• Manual Annotations of this start: 15 of 156
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AksarBAT_10 (DR), AnClar_9 (DR), AnarQue_12 (DR), BiggityBass_9 (DR), Blackpen_12 (DR), BobRoss2024_9 (DR), CaiB_12 (DR), CloverMinnie_12 (DR), FelixTres_12 (DR), LittleMunchkin_11 (DR), MakoManhole_12 (DR), MossRose_12 (DR), NHagos_10 (DR), Sisko_9 (DR), Sour_13 (DR), TPA2_19 (singleton), TraderJ_12 (DR), Wooper_12 (DR), Yago84_9 (DR), Yeshua_12 (DR),

Start 30:
• Found in 93 of 185 (50.3%) of genes in pham
• Manual Annotations of this start: 76 of 156
• Called 94.6% of time when present
• Phage (with cluster) where this start called: Abinghost_13 (B3), Ahwei_10 (B4), Akoma_13 (B3), AlanGrant_12 (B4), Antihero_10 (B4), Apex_10 (B4), Athena_14 (B3), Audrey_13 (B3), Austelle_11 (B4), Baloo_13 (B3), Ben11_12 (B3), Bernardo_13 (B3), BobbyK_11 (B4), Briakila_13 (B3), CRB2_14 (B9), Casbah_12 (B3), ChaChing_13 (B3), ChrisnMich_10 (B4), Cooper_11 (B4), Corofin_13 (B3), Deenasa_13 (B3), Devonte_13 (B3), Epah_10 (B4), Fortunato_11 (B4), Frederick_11 (B4), Funsized_16 (B9), Gadjet_14 (B3), GinPorsche_10 (B4), GlenHope_14 (B3), Glubnar_13 (B3), Halfpint_12 (B3), Hally898_10 (B4), Hangman_11 (B4), HarveySr_13 (B3), Heath_11 (B4), Heathcliff_13 (B3), Imvubu_7 (B10), Indlovu_11 (B11), JAMaL_10 (B4), Jackstina_12 (B3), JaguarMi_12 (B4), JoyceMaria_11 (B4), Kamiyu_13 (B3), Knocker_16 (B9), Kronus_12 (B3), Lambano_10 (B4), LestyG_13 (B3), LilMcDreamy_12 (B12), LittleDigger_10 (B4), Lolalove_11 (B4), Mithril_11 (B4), MmasiCarm_13 (B3), Mortcellus_12 (B3), Mudslide_11 (B4), Mulaychimus_13 (B3), Nanao_10 (B4), Neos5_13 (B3), Nigel_9 (B4), Nozo_13 (B3), Olivio_12 (B3), OrangeOswald_13 (B3), PenguinLover67_14 (B9), Phaedrus_12 (B3), Phayeta_13 (B3), Philly_12 (B3), Phlyer_13 (B3), Pipefish_13 (B3), Poster_10 (B4), Prince_11 (B4), QueenPie_11 (B4), Quesadilla_13 (B9), RagingRooster_13 (B3), RawrgerThat_11 (B4), Renkei_10 (B4), Rinkes_16 (B9), Saguaro_13 (B7), Shenandoah_13 (B3), SlippinJimmy_13 (B3), Stinger_9 (B4), SwainyDoc_13 (B3), SynergyX_13 (B3), TinyTerror_13 (B3), Tydolla_13 (B3), Vincenzo_12 (B4), VioletZ_11 (B4), Waleliano_11 (B4), Xincheng_11 (B4), Yinz_13 (B3),

Start 31:
• Found in 7 of 185 (3.8%) of genes in pham
• Manual Annotations of this start: 2 of 156
• Called 100.0% of time when present

• Phage (with cluster) where this start called: 39HC_09 (B6), 40BC_09 (B6), ForDig_9 (B6), Hosp_07 (B6), Jolie1_09 (B6), KayaCho_9 (B6), Minnow_9 (B6),

Summary by clusters:

There are 15 clusters represented in this pham: singleton, B2, B10, AI, B8, B11, B4, B6, B7, B12, W, B3, DR, B9, AD,

Info for manual annotations of cluster AD:
•Start number 27 was manually annotated 1 time for cluster AD.
•Start number 28 was manually annotated 3 times for cluster AD.

Info for manual annotations of cluster AI:
•Start number 28 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster B10:
•Start number 30 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:
•Start number 30 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:
•Start number 30 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B2:
•Start number 28 was manually annotated 36 times for cluster B2.

Info for manual annotations of cluster B3:
•Start number 30 was manually annotated 41 times for cluster B3.

Info for manual annotations of cluster B4:
•Start number 28 was manually annotated 4 times for cluster B4.
•Start number 30 was manually annotated 25 times for cluster B4.

Info for manual annotations of cluster B6:
•Start number 31 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B7:
•Start number 30 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:
•Start number 25 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:
•Start number 30 was manually annotated 6 times for cluster B9.

Info for manual annotations of cluster DR:
•Start number 28 was manually annotated 8 times for cluster DR.
•Start number 29 was manually annotated 15 times for cluster DR.

Info for manual annotations of cluster W:
•Start number 28 was manually annotated 8 times for cluster W.

Gene Information:

Gene: 39HC_09 Start: 9546, Stop: 9785, Start Num: 31
Candidate Starts for 39HC_09:
(22, 9468), (Start: 31 @9546 has 2 MA's), (36, 9594), (56, 9690), (59, 9717),

Gene: 40BC_09 Start: 9546, Stop: 9785, Start Num: 31
Candidate Starts for 40BC_09:
(22, 9468), (Start: 31 @9546 has 2 MA's), (36, 9594), (56, 9690), (59, 9717),

Gene: Abinghost_13 Start: 10640, Stop: 10846, Start Num: 30
Candidate Starts for Abinghost_13:
(10, 10166), (12, 10232), (Start: 30 @10640 has 76 MA's), (37, 10715), (53, 10790),

Gene: Ahwei_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for Ahwei_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Akoma_13 Start: 10640, Stop: 10846, Start Num: 30
Candidate Starts for Akoma_13:
(Start: 30 @10640 has 76 MA's), (37, 10715), (53, 10790),

Gene: AksarBAT_10 Start: 9511, Stop: 9714, Start Num: 29
Candidate Starts for AksarBAT_10:
(Start: 29 @9511 has 15 MA's), (33, 9541), (60, 9682),

Gene: AlanGrant_12 Start: 11855, Stop: 12076, Start Num: 30
Candidate Starts for AlanGrant_12:
(9, 11213), (Start: 30 @11855 has 76 MA's), (38, 11918), (41, 11936), (59, 12017), (61, 12041), (63, 12059),

Gene: Allegro_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Allegro_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: AnClar_9 Start: 9843, Stop: 10046, Start Num: 29
Candidate Starts for AnClar_9:
(26, 9834), (Start: 29 @9843 has 15 MA's), (37, 9906), (54, 9978), (60, 10014),

Gene: AnarQue_12 Start: 11030, Stop: 11233, Start Num: 29
Candidate Starts for AnarQue_12:
(Start: 29 @11030 has 15 MA's), (33, 11060), (52, 11159),

Gene: Antihero_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for Antihero_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Apex_10 Start: 10688, Stop: 10909, Start Num: 30
Candidate Starts for Apex_10:
(Start: 28 @10685 has 61 MA's), (Start: 30 @10688 has 76 MA's), (37, 10748), (38, 10751), (41, 10769), (59, 10850), (60, 10853), (61, 10874),

Gene: Arbiter_14 Start: 12154, Stop: 12327, Start Num: 28
Candidate Starts for Arbiter_14:
(Start: 28 @12154 has 61 MA's), (38, 12220), (47, 12253),

Gene: Ares_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Ares_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Argie_9 Start: 10545, Stop: 10733, Start Num: 28
Candidate Starts for Argie_9:
(Start: 28 @10545 has 61 MA's), (40, 10638), (45, 10656), (56, 10695), (60, 10725),

Gene: Athena_14 Start: 11403, Stop: 11609, Start Num: 30
Candidate Starts for Athena_14:
(Start: 30 @11403 has 76 MA's), (37, 11478), (53, 11553),

Gene: Audrey_13 Start: 10640, Stop: 10846, Start Num: 30
Candidate Starts for Audrey_13:
(Start: 30 @10640 has 76 MA's), (37, 10715), (53, 10790),

Gene: Austelle_11 Start: 11144, Stop: 11365, Start Num: 30
Candidate Starts for Austelle_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (59, 11306), (61, 11330),

Gene: Axumite_10 Start: 9533, Stop: 9739, Start Num: 28
Candidate Starts for Axumite_10:
(4, 8870), (6, 8882), (11, 9125), (13, 9203), (Start: 28 @9533 has 61 MA's), (37, 9596),

Gene: Baloo_13 Start: 10640, Stop: 10846, Start Num: 30
Candidate Starts for Baloo_13:
(Start: 30 @10640 has 76 MA's), (37, 10715), (53, 10790),

Gene: Bananafish_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Bananafish_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Ben11_12 Start: 10488, Stop: 10694, Start Num: 30
Candidate Starts for Ben11_12:
(10, 10014), (12, 10080), (Start: 30 @10488 has 76 MA's), (37, 10563), (53, 10638),

Gene: Bernardo_13 Start: 10662, Stop: 10868, Start Num: 30
Candidate Starts for Bernardo_13:
(5, 9978), (7, 9990), (9, 10014), (10, 10188), (12, 10254), (Start: 30 @10662 has 76 MA's), (37, 10737), (53, 10812),

Gene: BiggityBass_9 Start: 9351, Stop: 9554, Start Num: 29
Candidate Starts for BiggityBass_9:
(14, 9090), (26, 9342), (Start: 29 @9351 has 15 MA's), (37, 9414), (49, 9465),

Gene: Blackpen_12 Start: 10522, Stop: 10725, Start Num: 29
Candidate Starts for Blackpen_12:

(24, 10501), (Start: 29 @10522 has 15 MA's), (33, 10552), (52, 10651),

Gene: Blocker23_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Blocker23_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: BobRoss2024_9 Start: 9382, Stop: 9585, Start Num: 29
Candidate Starts for BobRoss2024_9:
(19, 9268), (26, 9373), (Start: 29 @9382 has 15 MA's), (48, 9490), (50, 9499),

Gene: BobbyK_11 Start: 11141, Stop: 11362, Start Num: 30
Candidate Starts for BobbyK_11:
(Start: 28 @11138 has 61 MA's), (Start: 30 @11141 has 76 MA's), (37, 11201), (38, 11204), (41, 11222), (45, 11237), (60, 11306), (61, 11327),

Gene: Boyle_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Boyle_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Briakila_13 Start: 11429, Stop: 11635, Start Num: 30
Candidate Starts for Briakila_13:
(Start: 30 @11429 has 76 MA's), (37, 11504), (53, 11579),

Gene: BrownCNA_12 Start: 11392, Stop: 11616, Start Num: 28
Candidate Starts for BrownCNA_12:
(Start: 28 @11392 has 61 MA's), (Start: 30 @11395 has 76 MA's), (37, 11455), (38, 11458), (41, 11476), (59, 11557), (60, 11560), (61, 11581),

Gene: Brownie5_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Brownie5_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: CRB2_14 Start: 11939, Stop: 12169, Start Num: 30
Candidate Starts for CRB2_14:
(Start: 30 @11939 has 76 MA's), (38, 12002), (41, 12020), (60, 12104),

Gene: CaiB_12 Start: 11030, Stop: 11233, Start Num: 29
Candidate Starts for CaiB_12:
(Start: 29 @11030 has 15 MA's), (33, 11060), (52, 11159),

Gene: Calamitous_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Calamitous_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Casbah_12 Start: 10492, Stop: 10698, Start Num: 30
Candidate Starts for Casbah_12:
(Start: 30 @10492 has 76 MA's), (37, 10567), (53, 10642),

Gene: Caterpie_8 Start: 8334, Stop: 8522, Start Num: 28
Candidate Starts for Caterpie_8:
(Start: 27 @8331 has 1 MA's), (Start: 28 @8334 has 61 MA's),

Gene: Causa_18 Start: 12947, Stop: 13141, Start Num: 28

Candidate Starts for Causa_18:
(15, 12701), (Start: 28 @12947 has 61 MA's), (35, 12998), (44, 13046),

Gene: Cepens_8 Start: 10284, Stop: 10472, Start Num: 28
Candidate Starts for Cepens_8:
(Start: 28 @10284 has 61 MA's), (40, 10377), (45, 10395), (56, 10434), (60, 10464),

Gene: ChaChing_13 Start: 10655, Stop: 10861, Start Num: 30
Candidate Starts for ChaChing_13:
(Start: 30 @10655 has 76 MA's), (37, 10730), (53, 10805),

Gene: CharlottesWeb_10 Start: 9585, Stop: 9791, Start Num: 28
Candidate Starts for CharlottesWeb_10:
(6, 8934), (8, 8958), (10, 9135), (12, 9201), (13, 9255), (Start: 28 @9585 has 61 MA's), (48, 9693), (49, 9699),

Gene: ChrisnMich_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for ChrisnMich_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: CloverMinnie_12 Start: 11030, Stop: 11233, Start Num: 29
Candidate Starts for CloverMinnie_12:
(Start: 29 @11030 has 15 MA's), (33, 11060), (52, 11159),

Gene: Coco2012_10 Start: 9585, Stop: 9791, Start Num: 28
Candidate Starts for Coco2012_10:
(6, 8934), (8, 8958), (10, 9135), (12, 9201), (13, 9255), (Start: 28 @9585 has 61 MA's), (48, 9693), (49, 9699),

Gene: Coffee_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Coffee_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Coldpizza_12 Start: 11468, Stop: 11665, Start Num: 28
Candidate Starts for Coldpizza_12:
(Start: 28 @11468 has 61 MA's), (49, 11582),

Gene: Cooper_11 Start: 10112, Stop: 10336, Start Num: 30
Candidate Starts for Cooper_11:
(Start: 30 @10112 has 76 MA's), (37, 10172), (38, 10175), (43, 10199), (45, 10211), (59, 10277), (61, 10301),

Gene: Corofin_13 Start: 10665, Stop: 10871, Start Num: 30
Candidate Starts for Corofin_13:
(Start: 30 @10665 has 76 MA's), (37, 10740), (53, 10815),

Gene: D12_08 Start: 10239, Stop: 10427, Start Num: 28
Candidate Starts for D12_08:
(Start: 28 @10239 has 61 MA's), (40, 10332), (45, 10350), (56, 10389), (60, 10419),

Gene: Deenasa_13 Start: 11403, Stop: 11609, Start Num: 30
Candidate Starts for Deenasa_13:
(Start: 30 @11403 has 76 MA's), (37, 11478), (53, 11553),

Gene: Devonte_13 Start: 10640, Stop: 10846, Start Num: 30
Candidate Starts for Devonte_13:
(Start: 30 @10640 has 76 MA's), (37, 10715), (53, 10790),

Gene: Dori_9 Start: 8150, Stop: 8341, Start Num: 27
Candidate Starts for Dori_9:
(Start: 27 @8150 has 1 MA's), (Start: 28 @8153 has 61 MA's),

Gene: Eaglehorse_14 Start: 12082, Stop: 12255, Start Num: 28
Candidate Starts for Eaglehorse_14:
(Start: 28 @12082 has 61 MA's), (38, 12148), (47, 12181),

Gene: Epah_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for Epah_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Evaa_11 Start: 10856, Stop: 11044, Start Num: 28
Candidate Starts for Evaa_11:
(4, 10193), (6, 10205), (8, 10229), (10, 10403), (11, 10445), (12, 10469), (Start: 28 @10856 has 61 MA's), (33, 10886), (49, 10970),

Gene: Fanaw_11 Start: 11141, Stop: 11365, Start Num: 28
Candidate Starts for Fanaw_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (59, 11306), (60, 11309), (61, 11330),

Gene: Faze9_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Faze9_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: FelixTres_12 Start: 11030, Stop: 11233, Start Num: 29
Candidate Starts for FelixTres_12:
(24, 11009), (Start: 29 @11030 has 15 MA's), (33, 11060), (52, 11159),

Gene: ForDig_9 Start: 9546, Stop: 9785, Start Num: 31
Candidate Starts for ForDig_9:
(22, 9468), (Start: 31 @9546 has 2 MA's), (36, 9594), (56, 9690), (59, 9717),

Gene: Fortunato_11 Start: 11135, Stop: 11356, Start Num: 30
Candidate Starts for Fortunato_11:
(Start: 28 @11132 has 61 MA's), (Start: 30 @11135 has 76 MA's), (37, 11195), (38, 11198), (41, 11216), (60, 11300), (61, 11321),

Gene: Frederick_11 Start: 11144, Stop: 11365, Start Num: 30
Candidate Starts for Frederick_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (60, 11309), (61, 11330),

Gene: FrenchFry_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for FrenchFry_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Fresco_10 Start: 9533, Stop: 9739, Start Num: 28
Candidate Starts for Fresco_10:
(4, 8870), (6, 8882), (11, 9125), (13, 9203), (Start: 28 @9533 has 61 MA's), (37, 9596),

Gene: Funsized_16 Start: 13096, Stop: 13326, Start Num: 30
Candidate Starts for Funsized_16:
(5, 12424), (7, 12436), (9, 12460), (10, 12634), (12, 12700), (Start: 30 @13096 has 76 MA's), (37, 13156), (39, 13162), (51, 13228), (52, 13231), (59, 13270),

Gene: Gadjet_14 Start: 10644, Stop: 10850, Start Num: 30
Candidate Starts for Gadjet_14:
(Start: 30 @10644 has 76 MA's), (37, 10719), (53, 10794),

Gene: GinPorsche_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for GinPorsche_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Glass_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Glass_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: GlenHope_14 Start: 10654, Stop: 10860, Start Num: 30
Candidate Starts for GlenHope_14:
(5, 9970), (7, 9982), (9, 10006), (10, 10180), (12, 10246), (Start: 30 @10654 has 76 MA's), (37, 10729), (53, 10804),

Gene: Glubnar_13 Start: 10644, Stop: 10850, Start Num: 30
Candidate Starts for Glubnar_13:
(Start: 30 @10644 has 76 MA's), (37, 10719), (53, 10794),

Gene: GodPhather_9 Start: 10542, Stop: 10730, Start Num: 28
Candidate Starts for GodPhather_9:
(Start: 28 @10542 has 61 MA's), (40, 10635), (45, 10653), (56, 10692), (60, 10722),

Gene: Godines_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Godines_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Halfpint_12 Start: 10489, Stop: 10695, Start Num: 30
Candidate Starts for Halfpint_12:
(Start: 30 @10489 has 76 MA's), (37, 10564), (53, 10639),

Gene: Hally898_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for Hally898_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Hangman_11 Start: 11144, Stop: 11365, Start Num: 30
Candidate Starts for Hangman_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (60, 11309), (61, 11330),

Gene: HarveySr_13 Start: 10641, Stop: 10847, Start Num: 30
Candidate Starts for HarveySr_13:

(Start: 30 @10641 has 76 MA's), (37, 10716), (53, 10791),

Gene: Heath_11 Start: 11144, Stop: 11365, Start Num: 30
Candidate Starts for Heath_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (59, 11306), (60, 11309), (61, 11330),

Gene: Heathcliff_13 Start: 10626, Stop: 10832, Start Num: 30
Candidate Starts for Heathcliff_13:
(5, 9942), (7, 9954), (9, 9978), (10, 10152), (12, 10218), (Start: 30 @10626 has 76 MA's), (37, 10701), (53, 10776),

Gene: Hedgerow_14 Start: 12163, Stop: 12336, Start Num: 28
Candidate Starts for Hedgerow_14:
(Start: 28 @12163 has 61 MA's), (38, 12229), (47, 12262),

Gene: Holeinone_14 Start: 12063, Stop: 12236, Start Num: 28
Candidate Starts for Holeinone_14:
(Start: 28 @12063 has 61 MA's), (38, 12129), (47, 12162),

Gene: Hosp_07 Start: 7748, Stop: 7987, Start Num: 31
Candidate Starts for Hosp_07:
(22, 7670), (Start: 31 @7748 has 2 MA's), (36, 7796), (56, 7892), (59, 7919),

Gene: Hydro_11 Start: 11138, Stop: 11362, Start Num: 28
Candidate Starts for Hydro_11:
(Start: 28 @11138 has 61 MA's), (Start: 30 @11141 has 76 MA's), (37, 11201), (38, 11204), (41, 11222), (45, 11237), (60, 11306), (61, 11327),

Gene: Imvubu_7 Start: 7957, Stop: 8193, Start Num: 30
Candidate Starts for Imvubu_7:
(5, 7288), (9, 7324), (10, 7498), (12, 7564), (Start: 30 @7957 has 76 MA's), (38, 8020), (59, 8134),

Gene: Indlovu_11 Start: 10773, Stop: 11009, Start Num: 30
Candidate Starts for Indlovu_11:
(Start: 30 @10773 has 76 MA's), (38, 10842), (52, 10902), (59, 10941),

Gene: ItsyBitsy1_14 Start: 12055, Stop: 12228, Start Num: 28
Candidate Starts for ItsyBitsy1_14:
(Start: 28 @12055 has 61 MA's), (38, 12121), (47, 12154),

Gene: JAMaL_10 Start: 10664, Stop: 10885, Start Num: 30
Candidate Starts for JAMaL_10:
(Start: 30 @10664 has 76 MA's), (37, 10724), (45, 10760), (61, 10850),

Gene: Jackstina_12 Start: 10557, Stop: 10763, Start Num: 30
Candidate Starts for Jackstina_12:
(Start: 30 @10557 has 76 MA's), (37, 10632), (53, 10707),

Gene: JaguarMi_12 Start: 10965, Stop: 11189, Start Num: 30
Candidate Starts for JaguarMi_12:
(Start: 30 @10965 has 76 MA's), (37, 11025), (38, 11028), (42, 11049), (43, 11052), (60, 11133), (61, 11154),

Gene: JellyBelly_10 Start: 9585, Stop: 9791, Start Num: 28
Candidate Starts for JellyBelly_10:
(6, 8934), (8, 8958), (10, 9135), (12, 9201), (Start: 28 @9585 has 61 MA's), (48, 9693), (49, 9699),

Gene: Jeon_8 Start: 10272, Stop: 10460, Start Num: 28
Candidate Starts for Jeon_8:
(Start: 28 @10272 has 61 MA's), (40, 10365), (45, 10383), (56, 10422), (60, 10452),

Gene: JohnLord_9 Start: 7856, Stop: 8044, Start Num: 28
Candidate Starts for JohnLord_9:
(Start: 27 @7853 has 1 MA's), (Start: 28 @7856 has 61 MA's),

Gene: Jolie1_09 Start: 9546, Stop: 9785, Start Num: 31
Candidate Starts for Jolie1_09:
(22, 9468), (Start: 31 @9546 has 2 MA's), (36, 9594), (56, 9690), (59, 9717),

Gene: JoyceMaria_11 Start: 11144, Stop: 11365, Start Num: 30
Candidate Starts for JoyceMaria_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (60, 11309), (61, 11330),

Gene: Kaleb_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Kaleb_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Kamiyu_13 Start: 10635, Stop: 10841, Start Num: 30
Candidate Starts for Kamiyu_13:
(Start: 30 @10635 has 76 MA's), (37, 10710), (53, 10785),

Gene: KayaCho_9 Start: 9549, Stop: 9788, Start Num: 31
Candidate Starts for KayaCho_9:
(22, 9471), (Start: 31 @9549 has 2 MA's), (36, 9597), (56, 9693), (59, 9720),

Gene: Kheth_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Kheth_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Knocker_16 Start: 13569, Stop: 13811, Start Num: 30
Candidate Starts for Knocker_16:
(5, 12882), (7, 12894), (9, 12918), (10, 13092), (12, 13158), (Start: 30 @13569 has 76 MA's), (37, 13635), (52, 13713), (59, 13752),

Gene: Kolhan_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Kolhan_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Kronus_12 Start: 11247, Stop: 11453, Start Num: 30
Candidate Starts for Kronus_12:
(Start: 30 @11247 has 76 MA's), (37, 11322), (53, 11397),

Gene: Lambano_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for Lambano_10:

(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Lars_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Lars_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Laurie_14 Start: 12065, Stop: 12238, Start Num: 28
Candidate Starts for Laurie_14:
(Start: 28 @12065 has 61 MA's), (38, 12131), (47, 12164),

Gene: Lephleur_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Lephleur_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: LestyG_13 Start: 10644, Stop: 10850, Start Num: 30
Candidate Starts for LestyG_13:
(Start: 30 @10644 has 76 MA's), (37, 10719), (53, 10794),

Gene: Ligma_10 Start: 9533, Stop: 9739, Start Num: 28
Candidate Starts for Ligma_10:
(4, 8870), (6, 8882), (11, 9125), (13, 9203), (Start: 28 @9533 has 61 MA's), (37, 9596),

Gene: LilMcDreamy_12 Start: 11806, Stop: 12027, Start Num: 30
Candidate Starts for LilMcDreamy_12:
(5, 11131), (7, 11143), (9, 11167), (10, 11341), (Start: 30 @11806 has 76 MA's), (55, 11950), (60, 11983),

Gene: LilSmirk_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for LilSmirk_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: LittleDigger_10 Start: 10040, Stop: 10261, Start Num: 30
Candidate Starts for LittleDigger_10:
(Start: 30 @10040 has 76 MA's), (37, 10100), (38, 10103), (41, 10121), (45, 10136), (61, 10226),

Gene: LittleMunchkin_11 Start: 10824, Stop: 11030, Start Num: 29
Candidate Starts for LittleMunchkin_11:
(18, 10707), (20, 10728), (23, 10767), (26, 10815), (Start: 29 @10824 has 15 MA's), (37, 10887),

Gene: LizLemon_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for LizLemon_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Lolalove_11 Start: 11141, Stop: 11362, Start Num: 30
Candidate Starts for Lolalove_11:
(Start: 28 @11138 has 61 MA's), (Start: 30 @11141 has 76 MA's), (37, 11201), (38, 11204), (41, 11222), (59, 11303), (60, 11306), (61, 11327),

Gene: Magpie_11 Start: 11296, Stop: 11520, Start Num: 28
Candidate Starts for Magpie_11:
(Start: 28 @11296 has 61 MA's), (Start: 30 @11299 has 76 MA's), (37, 11359), (38, 11362), (41, 11380), (59, 11461), (60, 11464), (61, 11485),

Gene: MakoManhole_12 Start: 11030, Stop: 11233, Start Num: 29
Candidate Starts for MakoManhole_12:
(Start: 29 @11030 has 15 MA's), (33, 11060), (52, 11159),

Gene: Mao1_8 Start: 8549, Stop: 8737, Start Num: 28
Candidate Starts for Mao1_8:
(Start: 27 @8546 has 1 MA's), (Start: 28 @8549 has 61 MA's),

Gene: Mariokart_10 Start: 9585, Stop: 9791, Start Num: 28
Candidate Starts for Mariokart_10:
(Start: 28 @9585 has 61 MA's), (48, 9693), (49, 9699),

Gene: Mask_9 Start: 8550, Stop: 8738, Start Num: 28
Candidate Starts for Mask_9:
(Start: 27 @8547 has 1 MA's), (Start: 28 @8550 has 61 MA's),

Gene: MasterPo_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for MasterPo_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Megabear_8 Start: 10239, Stop: 10427, Start Num: 28
Candidate Starts for Megabear_8:
(Start: 28 @10239 has 61 MA's), (40, 10332), (45, 10350), (56, 10389), (60, 10419),

Gene: Minnow_9 Start: 9549, Stop: 9788, Start Num: 31
Candidate Starts for Minnow_9:
(22, 9471), (Start: 31 @9549 has 2 MA's), (36, 9597), (56, 9693), (59, 9720),

Gene: Mithril_11 Start: 11144, Stop: 11365, Start Num: 30
Candidate Starts for Mithril_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (59, 11306), (60, 11309), (61, 11330),

Gene: MmasiCarm_13 Start: 10640, Stop: 10846, Start Num: 30
Candidate Starts for MmasiCarm_13:
(Start: 30 @10640 has 76 MA's), (37, 10715), (53, 10790),

Gene: Mortcellus_12 Start: 11278, Stop: 11484, Start Num: 30
Candidate Starts for Mortcellus_12:
(Start: 30 @11278 has 76 MA's), (37, 11353), (53, 11428),

Gene: MossRose_12 Start: 11030, Stop: 11233, Start Num: 29
Candidate Starts for MossRose_12:
(24, 11009), (Start: 29 @11030 has 15 MA's), (33, 11060), (52, 11159),

Gene: Mudslide_11 Start: 11392, Stop: 11613, Start Num: 30
Candidate Starts for Mudslide_11:
(Start: 28 @11389 has 61 MA's), (Start: 30 @11392 has 76 MA's), (37, 11452), (38, 11455), (41, 11473), (45, 11488), (59, 11554), (60, 11557), (61, 11578),

Gene: Mulaychimus_13 Start: 10641, Stop: 10847, Start Num: 30
Candidate Starts for Mulaychimus_13:
(Start: 30 @10641 has 76 MA's), (37, 10716), (53, 10791),

Gene: NHagos_10 Start: 9514, Stop: 9717, Start Num: 29
Candidate Starts for NHagos_10:
(Start: 29 @9514 has 15 MA's), (33, 9544), (60, 9685),

Gene: Nanao_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for Nanao_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Neos5_13 Start: 11430, Stop: 11636, Start Num: 30
Candidate Starts for Neos5_13:
(Start: 30 @11430 has 76 MA's), (37, 11505), (53, 11580),

Gene: Nigel_9 Start: 9942, Stop: 10163, Start Num: 30
Candidate Starts for Nigel_9:
(Start: 30 @9942 has 76 MA's), (37, 10002), (38, 10005), (45, 10038), (61, 10128),

Gene: Nozo_13 Start: 11405, Stop: 11611, Start Num: 30
Candidate Starts for Nozo_13:
(Start: 30 @11405 has 76 MA's), (37, 11480), (53, 11555),

Gene: Olivio_12 Start: 10489, Stop: 10695, Start Num: 30
Candidate Starts for Olivio_12:
(Start: 30 @10489 has 76 MA's), (37, 10564), (53, 10639),

Gene: Opia_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Opia_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: OrangeOswald_13 Start: 10640, Stop: 10846, Start Num: 30
Candidate Starts for OrangeOswald_13:
(Start: 30 @10640 has 76 MA's), (37, 10715), (53, 10790),

Gene: PR_08 Start: 10239, Stop: 10427, Start Num: 28
Candidate Starts for PR_08:
(Start: 28 @10239 has 61 MA's), (40, 10332), (45, 10350), (56, 10389), (60, 10419),

Gene: PenguinLover67_14 Start: 11948, Stop: 12169, Start Num: 30
Candidate Starts for PenguinLover67_14:
(Start: 30 @11948 has 76 MA's), (38, 12011), (41, 12029), (60, 12113), (61, 12134),

Gene: Phaedrus_12 Start: 10557, Stop: 10763, Start Num: 30
Candidate Starts for Phaedrus_12:
(Start: 30 @10557 has 76 MA's), (37, 10632), (53, 10707),

Gene: Phantasmagoria_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Phantasmagoria_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Phayeta_13 Start: 10516, Stop: 10722, Start Num: 30
Candidate Starts for Phayeta_13:
(Start: 30 @10516 has 76 MA's), (37, 10591), (53, 10666),

Gene: Philly_12 Start: 10530, Stop: 10736, Start Num: 30
Candidate Starts for Philly_12:
(5, 9846), (7, 9858), (9, 9882), (10, 10056), (12, 10122), (Start: 30 @10530 has 76 MA's), (37, 10605), (53, 10680),

Gene: Phlyer_13 Start: 11397, Stop: 11603, Start Num: 30
Candidate Starts for Phlyer_13:
(5, 10713), (7, 10725), (9, 10749), (10, 10923), (12, 10989), (Start: 30 @11397 has 76 MA's), (37, 11472), (53, 11547),

Gene: Pine5_13 Start: 10872, Stop: 11096, Start Num: 28
Candidate Starts for Pine5_13:
(Start: 28 @10872 has 61 MA's), (32, 10899), (45, 10980), (46, 10983),

Gene: Pipefish_13 Start: 11526, Stop: 11732, Start Num: 30
Candidate Starts for Pipefish_13:
(Start: 30 @11526 has 76 MA's), (37, 11601), (53, 11676),

Gene: Poster_10 Start: 10039, Stop: 10260, Start Num: 30
Candidate Starts for Poster_10:
(Start: 30 @10039 has 76 MA's), (37, 10099), (38, 10102), (41, 10120), (45, 10135), (61, 10225),

Gene: Prince_11 Start: 11304, Stop: 11525, Start Num: 30
Candidate Starts for Prince_11:
(Start: 28 @11301 has 61 MA's), (Start: 30 @11304 has 76 MA's), (37, 11364), (38, 11367), (41, 11385), (45, 11400), (59, 11466), (60, 11469), (61, 11490),

Gene: PrinceCharming_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for PrinceCharming_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: QueenPie_11 Start: 10997, Stop: 11221, Start Num: 30
Candidate Starts for QueenPie_11:
(Start: 30 @10997 has 76 MA's), (37, 11057), (38, 11060), (42, 11081), (45, 11096), (61, 11186), (62, 11195),

Gene: Quesadilla_13 Start: 11758, Stop: 11988, Start Num: 30
Candidate Starts for Quesadilla_13:
(Start: 30 @11758 has 76 MA's), (41, 11839), (52, 11881), (60, 11923), (61, 11944),

Gene: RagingRooster_13 Start: 10641, Stop: 10847, Start Num: 30
Candidate Starts for RagingRooster_13:
(Start: 30 @10641 has 76 MA's), (37, 10716), (53, 10791),

Gene: RawrgerThat_11 Start: 11135, Stop: 11356, Start Num: 30
Candidate Starts for RawrgerThat_11:
(1, 10139), (2, 10184), (3, 10187), (5, 10457), (9, 10493), (Start: 30 @11135 has 76 MA's), (37, 11195), (38, 11198), (41, 11216), (60, 11300), (61, 11321),

Gene: Renkei_10 Start: 10040, Stop: 10261, Start Num: 30
Candidate Starts for Renkei_10:
(Start: 30 @10040 has 76 MA's), (37, 10100), (38, 10103), (41, 10121), (45, 10136), (61, 10226),

Gene: Rhinoforte_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Rhinoforte_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Rinkes_16 Start: 13061, Stop: 13291, Start Num: 30
Candidate Starts for Rinkes_16:
(17, 12956), (21, 12980), (Start: 30 @13061 has 76 MA's), (37, 13121), (43, 13145), (57, 13214),

Gene: Rosebush_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for Rosebush_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Sabella_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Sabella_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Saguaro_13 Start: 12000, Stop: 12221, Start Num: 30
Candidate Starts for Saguaro_13:
(Start: 30 @12000 has 76 MA's), (38, 12063), (43, 12084), (59, 12162), (61, 12186),

Gene: Sejanus_9 Start: 9366, Stop: 9554, Start Num: 28
Candidate Starts for Sejanus_9:
(Start: 27 @9363 has 1 MA's), (Start: 28 @9366 has 61 MA's),

Gene: Shatter_10 Start: 9533, Stop: 9739, Start Num: 28
Candidate Starts for Shatter_10:
(4, 8870), (6, 8882), (11, 9125), (13, 9203), (Start: 28 @9533 has 61 MA's), (37, 9596),

Gene: Shenandoah_13 Start: 10643, Stop: 10849, Start Num: 30
Candidate Starts for Shenandoah_13:
(Start: 30 @10643 has 76 MA's), (37, 10718), (53, 10793),

Gene: Sisko_9 Start: 9345, Stop: 9548, Start Num: 29
Candidate Starts for Sisko_9:
(26, 9336), (Start: 29 @9345 has 15 MA's), (37, 9408), (54, 9480), (60, 9516),

Gene: SlippinJimmy_13 Start: 11402, Stop: 11608, Start Num: 30
Candidate Starts for SlippinJimmy_13:
(Start: 30 @11402 has 76 MA's), (37, 11477), (53, 11552),

Gene: Sour_13 Start: 11191, Stop: 11394, Start Num: 29
Candidate Starts for Sour_13:
(Start: 29 @11191 has 15 MA's), (48, 11299),

Gene: StAugustine_16 Start: 12941, Stop: 13135, Start Num: 28
Candidate Starts for StAugustine_16:
(Start: 28 @12941 has 61 MA's), (35, 12992), (44, 13040),

Gene: Stinger_9 Start: 9575, Stop: 9799, Start Num: 30
Candidate Starts for Stinger_9:
(Start: 30 @9575 has 76 MA's), (37, 9635), (38, 9638), (45, 9674), (61, 9764),

Gene: SwainyDoc_13 Start: 10638, Stop: 10844, Start Num: 30

Candidate Starts for SwainyDoc_13:
(Start: 30 @10638 has 76 MA's), (37, 10713), (53, 10788),

Gene: SynergyX_13 Start: 10641, Stop: 10847, Start Num: 30
Candidate Starts for SynergyX_13:
(Start: 30 @10641 has 76 MA's), (37, 10716), (53, 10791),

Gene: TA17A_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for TA17A_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: TPA2_19 Start: 12170, Stop: 12361, Start Num: 29
Candidate Starts for TPA2_19:
(Start: 29 @12170 has 15 MA's), (37, 12233), (53, 12302), (59, 12338), (60, 12341),

Gene: Taptic_8 Start: 10239, Stop: 10427, Start Num: 28
Candidate Starts for Taptic_8:
(Start: 28 @10239 has 61 MA's), (40, 10332), (45, 10350), (56, 10389), (60, 10419),

Gene: Thonko_9 Start: 8053, Stop: 8286, Start Num: 25
Candidate Starts for Thonko_9:
(Start: 25 @8053 has 1 MA's), (34, 8101), (42, 8155), (44, 8164), (56, 8203), (58, 8227), (59, 8230),

Gene: Tinciduntsolum_15 Start: 12180, Stop: 12353, Start Num: 28
Candidate Starts for Tinciduntsolum_15:
(Start: 28 @12180 has 61 MA's), (38, 12246), (47, 12279),

Gene: TinyTerror_13 Start: 10643, Stop: 10849, Start Num: 30
Candidate Starts for TinyTerror_13:
(Start: 30 @10643 has 76 MA's), (37, 10718), (53, 10793),

Gene: TraderJ_12 Start: 11027, Stop: 11230, Start Num: 29
Candidate Starts for TraderJ_12:
(24, 11006), (Start: 29 @11027 has 15 MA's), (33, 11057), (52, 11156),

Gene: Tres_14 Start: 12064, Stop: 12237, Start Num: 28
Candidate Starts for Tres_14:
(Start: 28 @12064 has 61 MA's), (38, 12130), (47, 12163),

Gene: Tydolla_13 Start: 11402, Stop: 11608, Start Num: 30
Candidate Starts for Tydolla_13:
(Start: 30 @11402 has 76 MA's), (37, 11477), (53, 11552),

Gene: Vic9_00014 Start: 12507, Stop: 12680, Start Num: 28
Candidate Starts for Vic9_00014:
(Start: 28 @12507 has 61 MA's), (38, 12573), (47, 12606),

Gene: Vincenzo_12 Start: 11855, Stop: 12076, Start Num: 30
Candidate Starts for Vincenzo_12:
(9, 11213), (Start: 30 @11855 has 76 MA's), (38, 11918), (41, 11936), (59, 12017), (61, 12041), (63, 12059),

Gene: VioletZ_11 Start: 11144, Stop: 11365, Start Num: 30

Candidate Starts for VioletZ_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (60, 11309), (61, 11330),

Gene: Waleliano_11 Start: 11144, Stop: 11365, Start Num: 30
Candidate Starts for Waleliano_11:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (60, 11309), (61, 11330),

Gene: West99_14 Start: 12181, Stop: 12354, Start Num: 28
Candidate Starts for West99_14:
(Start: 28 @12181 has 61 MA's), (38, 12247), (47, 12280),

Gene: Wooper_12 Start: 11030, Stop: 11233, Start Num: 29
Candidate Starts for Wooper_12:
(Start: 29 @11030 has 15 MA's), (33, 11060), (52, 11159),

Gene: Xincheng_11 Start: 10965, Stop: 11189, Start Num: 30
Candidate Starts for Xincheng_11:
(Start: 30 @10965 has 76 MA's), (37, 11025), (38, 11028), (42, 11049), (43, 11052), (60, 11133), (61, 11154),

Gene: Yago84_9 Start: 9354, Stop: 9557, Start Num: 29
Candidate Starts for Yago84_9:
(26, 9345), (Start: 29 @9354 has 15 MA's), (37, 9417), (54, 9489), (60, 9525),

Gene: Yeshua_12 Start: 11034, Stop: 11237, Start Num: 29
Candidate Starts for Yeshua_12:
(14, 10770), (16, 10863), (Start: 29 @11034 has 15 MA's), (33, 11064), (36, 11085), (52, 11163),

Gene: Yinz_13 Start: 10670, Stop: 10876, Start Num: 30
Candidate Starts for Yinz_13:
(Start: 30 @10670 has 76 MA's), (37, 10745), (53, 10820),

Gene: Zemanar_12 Start: 11141, Stop: 11365, Start Num: 28
Candidate Starts for Zemanar_12:
(Start: 28 @11141 has 61 MA's), (Start: 30 @11144 has 76 MA's), (37, 11204), (38, 11207), (41, 11225), (45, 11240), (60, 11309), (61, 11330),