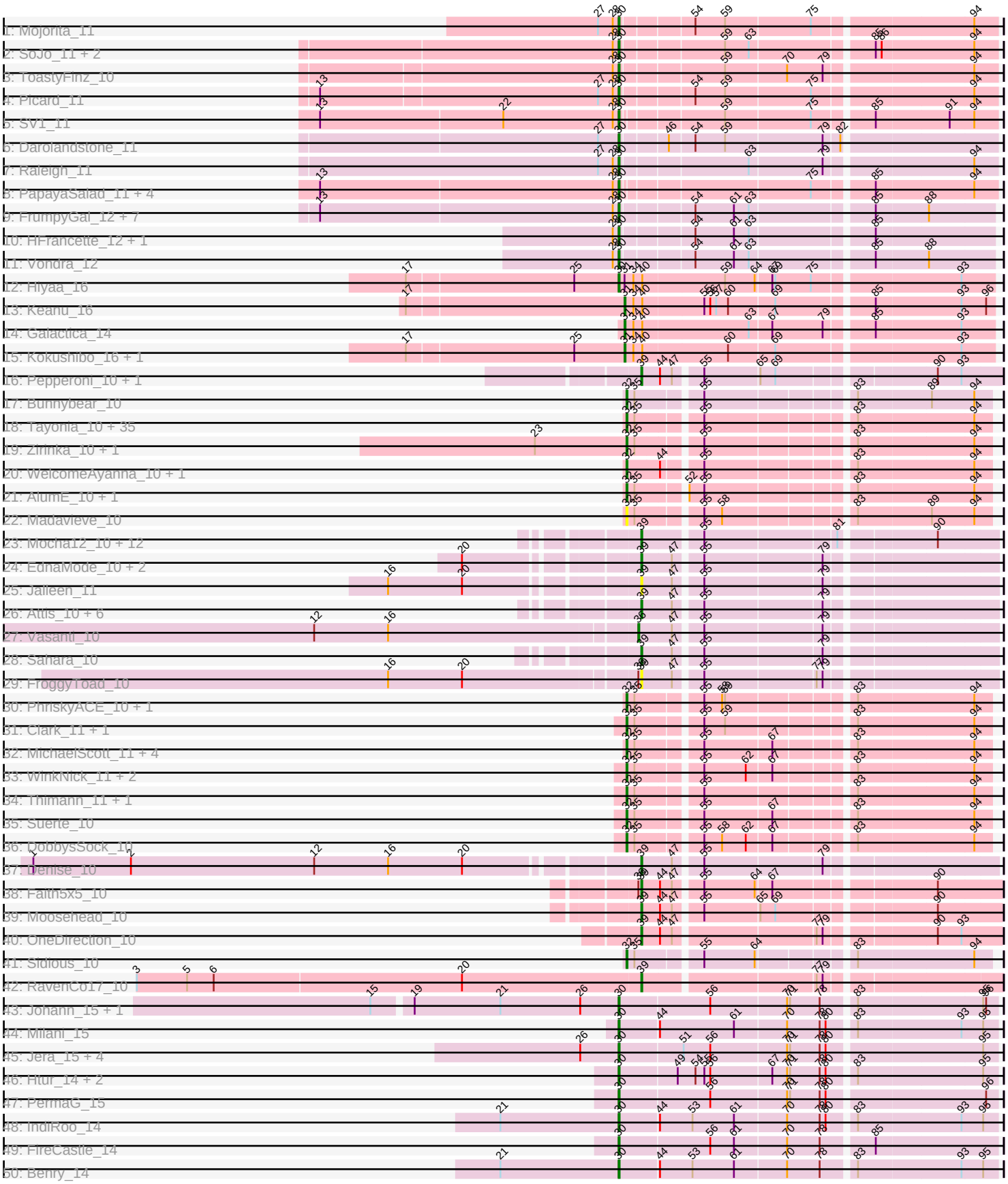
Pham 345414


1: Mojorita_11
2: SoJo_11 + 2
3: ToastyFinz_10
4: Picard_11
5: SV1_11
6: Darolandstone_11
7: Raleigh_11
8: PapayaSalad_11 + 4
9: FrumpyGal_12 + 7
10: HFrancette_12 + 1
11: Vondra_12
12: Hiyaa_16
13: Keanu_16
14: Galactica_14
15: Kokushibo_16 + 1
16: Pepperoni_10 + 1
17: Bunnybear_10
18: Tayonia_10 + 35
19: Zinnka_10 + 1
20: WelcomeAyanna_10 + 1
21: AlumE_10 + 1
22: Madavieve_10
23: Mocha12_10 + 12
24: EdnaMode_10 + 2
25: Jalleen_11
26: Attis_10 + 6
27: Vasanti_10
28: Sahara_10
29: FroggyToad_10
30: PhinskyACE_10 + 1
31: Clark_11 + 1
32: MichaelScott_11 + 4
33: WinkNick_11 + 2
34: Thimann_11 + 1
35: Suerte_10
36: DobbysSock_10
37: Denise_10
38: Faith5x5_10
39: Moosehead_10
40: OneDirection_10
41: Sidious_10
42: RavenC017_10
43: Johann_15 + 1
44: Mliani_15
45: Jera_15 + 4
46: Hitur_14 + 2
47: PermaG_15
48: IndiRoo_14
49: FireCastle_14
50: Benry_14

Pham 345414


51: Cicada_16
52: Zanella_14 + 3
53: Olympi_16
54: Winchester007_18 + 9
55: CookieDog_17
56: Mariel_18
57: ScoobySnack_15
58: Bush_17
59: Phingu_19
60: Jakelyne_18
61: Pickles13_16
62: Losacky_18
63: Phonegingi_16
64: PhillyJawn_17
65: NCRodriguez_18
66: Sweetums_17
67: DelaGarza_16
68: Lesfram_16 + 1
69: Gingerbug_13
70: Wrackline_21
71: Parvaparticeps_39
72: Jace_9
73: REQ3_44
74: Mbo4_10
75: GMA1_10
76: BigAnti_15
77: Finkle_10
78: Eyre_10
79: Guamit_11
80: DillyDally_11
81: TinyDot_12

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 345414 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 345414 has 184 members, 18 are drafts.

Phages represented in each track:
• Track 1 : Mojorita_11
• Track 2 : SoJo_11, DaRealMyers_11, Tubberson_11
• Track 3 : ToastyFinz_10
• Track 4 : Picard_11
• Track 5 : SV1_11
• Track 6 : Darolandstone_11
• Track 7 : Raleigh_11
• Track 8 : PapayaSalad_11, Ididsumtinwong_11, Austintatious_11, Lishka_11, Bioscum_11
• Track 9 : FrumpyGal_12, Eklok_12, Eastland_12, Cumberbatch_12, AxeJC_12, Piccadilly_12, Schlegelian_12, ArizonaGT_12
• Track 10 : HFrancette_12, Ignacio_12
• Track 11 : Vondra_12
• Track 12 : Hiyaa_16
• Track 13 : Keanu_16
• Track 14 : Galactica_14
• Track 15 : Kokushibo_16, Spocter_16
• Track 16 : Pepperoni_10, Lton_10
• Track 17 : Bunnybear_10
• Track 18 : Tayonia_10, Mcklovin_11, PantheRoc_10, BatStarr_10, SushiChef_10, Agueybana_10, BaxterFox_10, Maridalia_10, Ohgeesy_10, TimTam_10, Hugley_10, Zameen_10, Hortense_10, Eviarto_10, Dillpickles_10, Kita_10, Howe_10, Suscepit_10, Neobush_10, Bosnia_10, Antonio_10, Hyzer_10, Nymphadora_10, Madeline_10, Oregano_11, Sekhmet_11, Herod_10, Manasvini_10, Yeezy_10, Adora_10, Invectra_11, Shlim410_10, Polly_10, Eudoria_10, Trumpet_10, Twinkle_10
• Track 19 : Zirinka_10, Bialota_10
• Track 20 : WelcomeAyanna_10, ThankyouJordi_10
• Track 21 : AlumE_10, BoyNamedSue_10
• Track 22 : Madavieve_10
• Track 23 : Mocha12_10, Gizermo_10, Whiteclaw_10, Clap_10, Haley23_10, GemG_10, TuertoX_10, Sproutie_10, Savage_10, Cynthia_10, Ebert_10, JCole_10, Yinzer_10

• Track 24 : EdnaMode_10, Lamberg_10, Nettuno_10
• Track 25 : Jalleen_11
• Track 26 : Attis_10, Matteo_10, SoilAssassin_10, Bjanes7_10, Pickett_10, Yeet412_10, LordFarquaad_10
• Track 27 : Vasanti_10
• Track 28 : Sahara_10
• Track 29 : FroggyToad_10
• Track 30 : PhriskyACE_10, Dorito_10
• Track 31 : Clark_11, Annalisa_11
• Track 32 : MichaelScott_11, Tuti_11, Rizz_12, Easley_11, Beenie_11
• Track 33 : WinkNick_11, Dolores_11, Samman98_11
• Track 34 : Thimann_11, Powerball_10
• Track 35 : Suerte_10
• Track 36 : DobbysSock_10
• Track 37 : Denise_10
• Track 38 : Faith5x5_10
• Track 39 : Moosehead_10
• Track 40 : OneDirection_10
• Track 41 : Sidious_10
• Track 42 : RavenCo17_10
• Track 43 : Johann_15, Goodman_15
• Track 44 : Milani_15
• Track 45 : Jera_15, SBlackberry_14, Rootkit7_14, TurboVicky_14, Alove_14
• Track 46 : Htur_14, Linayshia_14, Rasovi_14
• Track 47 : PermaG_15
• Track 48 : IndiRoo_14
• Track 49 : FireCastle_14
• Track 50 : Benry_14
• Track 51 : Cicada_16
• Track 52 : Zanella_14, Typher_16, AyoTeo_16, Labella_16
• Track 53 : Olympi_16
• Track 54 : Winchester007_18, Warren_17, Appa_16, MenE_17, Carrillo_18, Dropshot_16, Antuna_17, Blett_17, Guzman_18, Violeta_18
• Track 55 : CookieDog_17
• Track 56 : Mariel_18
• Track 57 : ScoobySnack_15
• Track 58 : Bush_17
• Track 59 : Phingu_19
• Track 60 : Jakelyne_18
• Track 61 : Pickles13_16
• Track 62 : Losacky_18
• Track 63 : Phonegingi_16
• Track 64 : PhillyJawn_17
• Track 65 : NCRodriguez_18
• Track 66 : Sweetums_17
• Track 67 : DelaGarza_16
• Track 68 : Lesiram_16, Teng_16
• Track 69 : Gingerbug_13
• Track 70 : Wrackline_21
• Track 71 : Parvaparticeps_39
• Track 72 : Jace_9
• Track 73 : REQ3_44
• Track 74 : Mbo4_10

• Track 75 : GMA1_10
• Track 76 : BigAnti_15
• Track 77 : Finkle_10
• Track 78 : Eyre_10
• Track 79 : Gudmit_11
• Track 80 : DillyDally_11
• Track 81 : TinyDot_12

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 62 of the 166 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alove_14, Antuna_17, Appa_16, ArizonaGT_12, Austintatious_11, AxeJC_12, AyoTeo_16, Benry_14, Bioscum_11, Blett_17, Bush_17, Carrillo_18, Cicada_16, CookieDog_17, Cumberbatch_12, DaRealMyers_11, Darolandstone_11, Dropshot_16, Eastland_12, Eklok_12, FireCastle_14, FrumpyGal_12, Goodman_15, Guzman_18, HFrancette_12, Hiyaa_16, Htur_14, Ididsumtinwong_11, Ignacio_12, IndiRoo_14, Jakelyne_18, Jera_15, Johann_15, Labella_16, Linayshia_14, Lishka_11, Mariel_18, MenE_17, Milani_15, Mojorita_11, Olympi_16, PapayaSalad_11, PermaG_15, Phonegingi_16, Picard_11, Piccadilly_12, Pickles13_16, Raleigh_11, Rasovi_14, Rootkit7_14, SBlackberry_14, SV1_11, Schlegelian_12, ScoobySnack_15, SoJo_11, ToastyFinz_10, Tubberson_11, TurboVicky_14, Typher_16, Violeta_18, Vondra_12, Warren_17, Winchester007_18, Zanella_14,

Genes that have the "Most Annotated" start but do not call it:
• Losacky_18, NCRodriguez_18, PhillyJawn_17, Phingu_19,

Genes that do not have the "Most Annotated" start:
• Adora_10, Agueybana_10, AlumE_10, Annalisa_11, Antonio_10, Attis_10, BatStarr_10, BaxterFox_10, Beenie_11, Bialota_10, BigAnti_15, Bjanes7_10, Bosnia_10, BoyNamedSue_10, Bunnybear_10, Clap_10, Clark_11, Cynthia_10, DelaGarza_16, Denise_10, Dillpickles_10, DillyDally_11, DobbysSock_10, Dolores_11, Dorito_10, Easley_11, Ebert_10, EdnaMode_10, Eudoria_10, Eviarto_10, Eyre_10, Faith5x5_10, Finkle_10, FroggyToad_10, GMA1_10, Galactica_14, GemG_10, Gingerbug_13, Gizermo_10, Gudmit_11, Haley23_10, Herod_10, Hortense_10, Howe_10, Hugley_10, Hyzer_10, Invectra_11, JCole_10, Jace_9, Jalleen_11, Keanu_16, Kita_10, Kokushibo_16, Lamberg_10, Lesiram_16, LordFarquaad_10, Lton_10, Madavieve_10, Madeline_10, Manasvini_10, Maridalia_10, Matteo_10, Mbo4_10, Mcklovin_11, MichaelScott_11, Mocha12_10, Moosehead_10, Neobush_10, Nettuno_10, Nymphadora_10, Ohgeesy_10, OneDirection_10, Oregano_11, PantheRoc_10, Parvaparticeps_39, Pepperoni_10, PhriskyACE_10, Pickett_10, Polly_10, Powerball_10, REQ3_44, RavenCo17_10, Rizz_12, Sahara_10, Samman98_11, Savage_10, Sekhmet_11, Shlim410_10, Sidious_10, SoilAssassin_10, Spocter_16, Sproutie_10, Suerte_10, Suscepit_10, SushiChef_10, Sweetums_17, Tayonia_10, Teng_16, ThankyouJordi_10, Thimann_11, TimTam_10, TinyDot_12, Trumpet_10, TuertoX_10, Tuti_11, Twinkle_10, Vasanti_10, WelcomeAyanna_10, Whiteclaw_10, WinkNick_11,

Wrackline_21, Yeet412_10, Yeezy_10, Yinzer_10, Zameen_10, Zirinka_10,

Summary by start number:

Start 29:
• Found in 1 of 184 (0.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Parvaparticeps_39 (UNK),

Start 30:
• Found in 68 of 184 (37.0%) of genes in pham
• Manual Annotations of this start: 62 of 166
• Called 94.1% of time when present
• Phage (with cluster) where this start called: Alove_14 (EJ), Antuna_17 (GA), Appa_16 (GA), ArizonaGT_12 (BP), Austintatious_11 (BC3), AxeJC_12 (BP), AyoTeo_16 (EJ), Benry_14 (EJ), Bioscum_11 (BC3), Blett_17 (GA), Bush_17 (GA), Carrillo_18 (GA), Cicada_16 (EJ), CookieDog_17 (GA), Cumberbatch_12 (BP), DaRealMyers_11 (BC1), Darolandstone_11 (BC2), Dropshot_16 (GA), Eastland_12 (BP), Eklok_12 (BP), FireCastle_14 (EJ), FrumpyGal_12 (BP), Goodman_15 (EJ), Guzman_18 (GA), HFrancette_12 (BP), Hiyaa_16 (BQ), Htur_14 (EJ), Ididsumtinwong_11 (BC3), Ignacio_12 (BP), IndiRoo_14 (EJ), Jakelyne_18 (GA), Jera_15 (EJ), Johann_15 (EJ), Labella_16 (EJ), Linayshia_14 (EJ), Lishka_11 (BC3), Mariel_18 (GA), MenE_17 (GA), Milani_15 (EJ), Mojorita_11 (BC1), Olympi_16 (EJ), PapayaSalad_11 (BC3), PermaG_15 (EJ), Phonegingi_16 (GA), Picard_11 (BC1), Piccadilly_12 (BP), Pickles13_16 (GA), Raleigh_11 (BC2), Rasovi_14 (EJ), Rootkit7_14 (EJ), SBlackberry_14 (EJ), SV1_11 (BC1), Schlegelian_12 (BP), ScoobySnack_15 (GA), SoJo_11 (BC1), ToastyFinz_10 (BC1), Tubberson_11 (BC1), TurboVicky_14 (EJ), Typher_16 (EJ), Violeta_18 (GA), Vondra_12 (BP), Warren_17 (GA), Winchester007_18 (GA), Zanella_14 (EJ),

Start 31:
• Found in 5 of 184 (2.7%) of genes in pham
• Manual Annotations of this start: 4 of 166
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Galactica_14 (BQ), Keanu_16 (BQ), Kokushibo_16 (BQ), Spocter_16 (BQ),

Start 32:
• Found in 61 of 184 (33.2%) of genes in pham
• Manual Annotations of this start: 56 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adora_10 (CZ4), Agueybana_10 (CZ1), AlumE_10 (CZ1), Annalisa_11 (CZ4), Antonio_10 (CZ1), BatStarr_10 (CZ1), BaxterFox_10 (CZ3), Beenie_11 (CZ4), Bialota_10 (CZ1), Bosnia_10 (CZ1), BoyNamedSue_10 (CZ1), Bunnybear_10 (CZ), Clark_11 (CZ4), Dillpickles_10 (CZ1), DobbysSock_10 (CZ4), Dolores_11 (CZ4), Dorito_10 (CZ4), Easley_11 (CZ4), Eudoria_10 (CZ1), Eviarto_10 (CZ1), Herod_10 (CZ1), Hortense_10 (CZ4), Howe_10 (CZ4), Hugley_10 (CZ1), Hyzer_10 (CZ1), Invectra_11 (CZ4), Kita_10 (CZ1), Madavieve_10 (CZ1), Madeline_10 (CZ1), Manasvini_10 (CZ1), Maridalia_10 (CZ1), Mcklovin_11 (CZ4), MichaelScott_11 (CZ4), Neobush_10 (CZ1), Nymphadora_10 (CZ1), Ohgeesy_10 (CZ), Oregano_11 (CZ4), PantheRoc_10 (CZ3), PhriskyACE_10 (CZ4), Polly_10 (CZ1), Powerball_10 (CZ4), Rizz_12 (CZ4), Samman98_11 (CZ4),

Sekhmet_11 (CZ4), Shlim410_10 (CZ4), Sidious_10 (CZ7), Suerte_10 (CZ4), Suscepit_10 (CZ1), SushiChef_10 (CZ), Tayonia_10 (CZ1), ThankyouJordi_10 (CZ1), Thimann_11 (CZ4), TimTam_10 (CZ1), Trumpet_10 (CZ1), Tuti_11 (CZ4), Twinkle_10 (CZ4), WelcomeAyanna_10 (CZ1), WinkNick_11 (CZ4), Yeezy_10 (CZ3), Zameen_10 (CZ1), Zirinka_10 (CZ1),

Start 33:
• Found in 1 of 184 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finkle_10 (singleton),

Start 34:
• Found in 12 of 184 (6.5%) of genes in pham
• Manual Annotations of this start: 7 of 166
• Called 58.3% of time when present
• Phage (with cluster) where this start called: DelaGarza_16 (GF), DillyDally_11 (singleton), Gingerbug_13 (GF), Lesiram_16 (GF), Sweetums_17 (GF), Teng_16 (GF), Wrackline_21 (GF),

Start 36:
• Found in 4 of 184 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 166
• Called 50.0% of time when present
• Phage (with cluster) where this start called: GMA1_10 (singleton), Vasanti_10 (CZ2),

Start 38:
• Found in 1 of 184 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TinyDot_12 (singleton),

Start 39:
• Found in 38 of 184 (20.7%) of genes in pham
• Manual Annotations of this start: 33 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Attis_10 (CZ2), Bjanes7_10 (CZ2), Clap_10 (CZ2), Cynthia_10 (CZ2), Denise_10 (CZ5), Ebert_10 (CZ2), EdnaMode_10 (CZ2), Eyre_10 (singleton), Faith5x5_10 (CZ6), FroggyToad_10 (CZ2), GemG_10 (CZ2), Gizermo_10 (CZ2), Gudmit_11 (singleton), Haley23_10 (CZ2), JCole_10 (CZ2), Jace_9 (singleton), Jalleen_11 (CZ2), Lamberg_10 (CZ2), LordFarquaad_10 (CZ2), Lton_10 (CZ), Matteo_10 (CZ2), Mbo4_10 (singleton), Mocha12_10 (CZ2), Moosehead_10 (CZ6), Nettuno_10 (CZ2), OneDirection_10 (CZ6), Pepperoni_10 (CZ), Pickett_10 (CZ2), REQ3_44 (singleton), RavenCo17_10 (CZ8), Sahara_10 (CZ2), Savage_10 (CZ2), SoilAssassin_10 (CZ2), Sproutie_10 (CZ2), TuertoX_10 (CZ2), Whiteclaw_10 (CZ2), Yeet412_10 (CZ2), Yinzer_10 (CZ2),

Start 41:
• Found in 2 of 184 (1.1%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: BigAnti_15 (singleton),

Start 48:
• Found in 19 of 184 (10.3%) of genes in pham
• Manual Annotations of this start: 1 of 166
• Called 21.1% of time when present
• Phage (with cluster) where this start called: Losacky_18 (GA), NCRodriguez_18 (GA), PhillyJawn_17 (GA), Phingu_19 (GA),

Summary by clusters:

There are 19 clusters represented in this pham: singleton, GF, EJ, CZ2, CZ3, CZ1, CZ6, CZ7, CZ4, CZ5, CZ, BP, BQ, GA, CZ8, UNK, BC1, BC2, BC3,

Info for manual annotations of cluster BC1:
•Start number 30 was manually annotated 7 times for cluster BC1.

Info for manual annotations of cluster BC2:
•Start number 30 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:
•Start number 30 was manually annotated 5 times for cluster BC3.

Info for manual annotations of cluster BP:
•Start number 30 was manually annotated 11 times for cluster BP.

Info for manual annotations of cluster BQ:
•Start number 30 was manually annotated 1 time for cluster BQ.
•Start number 31 was manually annotated 4 times for cluster BQ.

Info for manual annotations of cluster CZ:
•Start number 32 was manually annotated 2 times for cluster CZ.
•Start number 39 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 32 was manually annotated 26 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 36 was manually annotated 1 time for cluster CZ2.
•Start number 39 was manually annotated 23 times for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 32 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 32 was manually annotated 24 times for cluster CZ4.

Info for manual annotations of cluster CZ5:
•Start number 39 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:
•Start number 39 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster CZ7:
•Start number 32 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster CZ8:
•Start number 39 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster EJ:
•Start number 30 was manually annotated 20 times for cluster EJ.

Info for manual annotations of cluster GA:
•Start number 30 was manually annotated 16 times for cluster GA.
•Start number 48 was manually annotated 1 time for cluster GA.

Info for manual annotations of cluster GF:
•Start number 34 was manually annotated 6 times for cluster GF.

Gene Information:

Gene: Adora_10 Start: 7051, Stop: 7380, Start Num: 32
Candidate Starts for Adora_10:
(Start: 32 @7051 has 56 MA's), (35, 7057), (55, 7114), (83, 7249), (94, 7363),

Gene: Agueybana_10 Start: 7710, Stop: 8039, Start Num: 32
Candidate Starts for Agueybana_10:
(Start: 32 @7710 has 56 MA's), (35, 7716), (55, 7773), (83, 7908), (94, 8022),

Gene: Alove_14 Start: 11215, Stop: 11580, Start Num: 30
Candidate Starts for Alove_14:
(26, 11176), (Start: 30 @11215 has 62 MA's), (51, 11278), (56, 11305), (70, 11380), (71, 11383), (78, 11413), (80, 11419), (95, 11566),

Gene: AlumE_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for AlumE_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (52, 7757), (55, 7772), (83, 7907), (94, 8021),

Gene: Annalisa_11 Start: 7358, Stop: 7687, Start Num: 32
Candidate Starts for Annalisa_11:
(Start: 32 @7358 has 56 MA's), (35, 7364), (55, 7421), (59, 7442), (83, 7556), (94, 7670),

Gene: Antonio_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Antonio_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Antuna_17 Start: 9303, Stop: 9662, Start Num: 30
Candidate Starts for Antuna_17:
(Start: 30 @9303 has 62 MA's), (Start: 48 @9357 has 1 MA's), (59, 9408), (61, 9417), (83, 9528), (85, 9546), (87, 9585), (91, 9618),

Gene: Appa_16 Start: 9165, Stop: 9524, Start Num: 30
Candidate Starts for Appa_16:
(Start: 30 @9165 has 62 MA's), (Start: 48 @9219 has 1 MA's), (59, 9270), (61, 9279), (83, 9390), (85, 9408), (87, 9447), (91, 9480),

Gene: ArizonaGT_12 Start: 7965, Stop: 8315, Start Num: 30
Candidate Starts for ArizonaGT_12:
(13, 7665), (28, 7959), (Start: 30 @7965 has 62 MA's), (54, 8031), (61, 8070), (63, 8085), (85, 8199), (88, 8250),

Gene: Attis_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Attis_10:
(Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Austintatious_11 Start: 7833, Stop: 8183, Start Num: 30
Candidate Starts for Austintatious_11:
(13, 7533), (28, 7827), (Start: 30 @7833 has 62 MA's), (75, 8010), (85, 8064), (94, 8160),

Gene: AxeJC_12 Start: 7978, Stop: 8328, Start Num: 30
Candidate Starts for AxeJC_12:
(13, 7678), (28, 7972), (Start: 30 @7978 has 62 MA's), (54, 8044), (61, 8083), (63, 8098), (85, 8212), (88, 8263),

Gene: AyoTeo_16 Start: 11346, Stop: 11711, Start Num: 30
Candidate Starts for AyoTeo_16:
(26, 11307), (Start: 30 @11346 has 62 MA's), (51, 11409), (56, 11436), (70, 11511), (71, 11514), (78, 11544), (80, 11550), (95, 11697),

Gene: BatStarr_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for BatStarr_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: BaxterFox_10 Start: 7057, Stop: 7386, Start Num: 32
Candidate Starts for BaxterFox_10:
(Start: 32 @7057 has 56 MA's), (35, 7063), (55, 7120), (83, 7255), (94, 7369),

Gene: Beenie_11 Start: 7351, Stop: 7680, Start Num: 32
Candidate Starts for Beenie_11:
(Start: 32 @7351 has 56 MA's), (35, 7357), (55, 7414), (67, 7480), (83, 7549), (94, 7663),

Gene: Benry_14 Start: 9400, Stop: 9765, Start Num: 30
Candidate Starts for Benry_14:
(21, 9280), (Start: 30 @9400 has 62 MA's), (44, 9439), (53, 9472), (61, 9514), (70, 9565), (78, 9598), (83, 9628), (93, 9730), (95, 9751),

Gene: Bialota_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Bialota_10:
(23, 7616), (Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: BigAnti_15 Start: 11940, Stop: 12278, Start Num: 41
Candidate Starts for BigAnti_15:
(41, 11940), (73, 12090), (82, 12135),

Gene: Bioscum_11 Start: 7869, Stop: 8219, Start Num: 30
Candidate Starts for Bioscum_11:
(13, 7569), (28, 7863), (Start: 30 @7869 has 62 MA's), (75, 8046), (85, 8100), (94, 8196),

Gene: Bjanes7_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Bjanes7_10:
(Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Blett_17 Start: 9318, Stop: 9677, Start Num: 30
Candidate Starts for Blett_17:
(Start: 30 @9318 has 62 MA's), (Start: 48 @9372 has 1 MA's), (59, 9423), (61, 9432), (83, 9543), (85, 9561), (87, 9600), (91, 9633),

Gene: Bosnia_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Bosnia_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: BoyNamedSue_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for BoyNamedSue_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (52, 7757), (55, 7772), (83, 7907), (94, 8021),

Gene: Bunnybear_10 Start: 7700, Stop: 8029, Start Num: 32
Candidate Starts for Bunnybear_10:
(Start: 32 @7700 has 56 MA's), (35, 7706), (55, 7763), (83, 7898), (89, 7970), (94, 8012),

Gene: Bush_17 Start: 9299, Stop: 9658, Start Num: 30
Candidate Starts for Bush_17:
(4, 8828), (Start: 30 @9299 has 62 MA's), (Start: 48 @9353 has 1 MA's), (59, 9404), (61, 9413), (83, 9524), (85, 9542), (87, 9581), (91, 9614),

Gene: Carrillo_18 Start: 9272, Stop: 9631, Start Num: 30
Candidate Starts for Carrillo_18:
(Start: 30 @9272 has 62 MA's), (Start: 48 @9326 has 1 MA's), (59, 9377), (61, 9386), (83, 9497), (85, 9515), (87, 9554), (91, 9587),

Gene: Cicada_16 Start: 11469, Stop: 11834, Start Num: 30
Candidate Starts for Cicada_16:
(15, 11226), (19, 11262), (21, 11349), (Start: 30 @11469 has 62 MA's), (56, 11559), (70, 11634), (71, 11637), (78, 11667), (83, 11697), (95, 11820),

Gene: Clap_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Clap_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Clark_11 Start: 7358, Stop: 7687, Start Num: 32
Candidate Starts for Clark_11:
(Start: 32 @7358 has 56 MA's), (35, 7364), (55, 7421), (59, 7442), (83, 7556), (94, 7670),

Gene: CookieDog_17 Start: 9299, Stop: 9658, Start Num: 30
Candidate Starts for CookieDog_17:
(Start: 30 @9299 has 62 MA's), (Start: 48 @9353 has 1 MA's), (59, 9404), (61, 9413), (83, 9524), (85, 9542), (87, 9581), (91, 9614),

Gene: Cumberbatch_12 Start: 7965, Stop: 8315, Start Num: 30
Candidate Starts for Cumberbatch_12:
(13, 7665), (28, 7959), (Start: 30 @7965 has 62 MA's), (54, 8031), (61, 8070), (63, 8085), (85, 8199), (88, 8250),

Gene: Cynthia_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Cynthia_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: DaRealMyers_11 Start: 8060, Stop: 8413, Start Num: 30
Candidate Starts for DaRealMyers_11:
(28, 8054), (Start: 30 @8060 has 62 MA's), (59, 8156), (63, 8180), (85, 8294), (86, 8300), (94, 8390),

Gene: Darolandstone_11 Start: 8300, Stop: 8653, Start Num: 30
Candidate Starts for Darolandstone_11:
(27, 8279), (Start: 30 @8300 has 62 MA's), (46, 8342), (54, 8366), (59, 8396), (79, 8492), (82, 8507),

Gene: DelaGarza_16 Start: 9951, Stop: 10310, Start Num: 34
Candidate Starts for DelaGarza_16:
(14, 9636), (Start: 34 @9951 has 7 MA's), (59, 10041), (63, 10065), (71, 10104), (81, 10152), (83, 10173), (84, 10179), (85, 10191), (91, 10263), (93, 10275),

Gene: Denise_10 Start: 6843, Stop: 7169, Start Num: 39
Candidate Starts for Denise_10:
(1, 6252), (2, 6351), (12, 6537), (16, 6612), (20, 6687), (Start: 39 @6843 has 33 MA's), (47, 6873), (55, 6897), (79, 7011),

Gene: Dillpickles_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Dillpickles_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: DillyDally_11 Start: 7911, Stop: 8249, Start Num: 34
Candidate Starts for DillyDally_11:
(7, 7539), (8, 7548), (9, 7551), (10, 7569), (Start: 34 @7911 has 7 MA's), (43, 7929), (45, 7941), (54, 7968), (79, 8094), (80, 8097), (83, 8118), (87, 8175), (91, 8208),

Gene: DobbysSock_10 Start: 6850, Stop: 7179, Start Num: 32
Candidate Starts for DobbysSock_10:
(Start: 32 @6850 has 56 MA's), (35, 6856), (55, 6913), (58, 6931), (62, 6955), (67, 6979), (83, 7048), (94, 7162),

Gene: Dolores_11 Start: 7352, Stop: 7681, Start Num: 32
Candidate Starts for Dolores_11:
(Start: 32 @7352 has 56 MA's), (35, 7358), (55, 7415), (62, 7457), (67, 7481), (83, 7550), (94, 7664),

Gene: Dorito_10 Start: 6855, Stop: 7184, Start Num: 32
Candidate Starts for Dorito_10:
(Start: 32 @6855 has 56 MA's), (35, 6861), (55, 6918), (58, 6936), (59, 6939), (83, 7053), (94, 7167),

Gene: Dropshot_16 Start: 9165, Stop: 9524, Start Num: 30
Candidate Starts for Dropshot_16:
(Start: 30 @9165 has 62 MA's), (Start: 48 @9219 has 1 MA's), (59, 9270), (61, 9279), (83, 9390), (85, 9408), (87, 9447), (91, 9480),

Gene: Easley_11 Start: 7351, Stop: 7680, Start Num: 32
Candidate Starts for Easley_11:
(Start: 32 @7351 has 56 MA's), (35, 7357), (55, 7414), (67, 7480), (83, 7549), (94, 7663),

Gene: Eastland_12 Start: 7966, Stop: 8316, Start Num: 30
Candidate Starts for Eastland_12:
(13, 7666), (28, 7960), (Start: 30 @7966 has 62 MA's), (54, 8032), (61, 8071), (63, 8086), (85, 8200), (88, 8251),

Gene: Ebert_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Ebert_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: EdnaMode_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for EdnaMode_10:
(20, 6678), (Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Eklok_12 Start: 7978, Stop: 8328, Start Num: 30
Candidate Starts for Eklok_12:
(13, 7678), (28, 7972), (Start: 30 @7978 has 62 MA's), (54, 8044), (61, 8083), (63, 8098), (85, 8212), (88, 8263),

Gene: Eudoria_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Eudoria_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Eviarto_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Eviarto_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Eyre_10 Start: 7498, Stop: 7827, Start Num: 39
Candidate Starts for Eyre_10:
(5, 7042), (20, 7318), (Start: 39 @7498 has 33 MA's), (77, 7660), (79, 7666),

Gene: Faith5x5_10 Start: 6802, Stop: 7131, Start Num: 39
Candidate Starts for Faith5x5_10:
(Start: 36 @6799 has 1 MA's), (Start: 39 @6802 has 33 MA's), (44, 6820), (47, 6832), (55, 6856), (64, 6907), (67, 6922), (90, 7069),

Gene: Finkle_10 Start: 6967, Stop: 7296, Start Num: 33
Candidate Starts for Finkle_10:
(18, 6748), (24, 6886), (Start: 33 @6967 has 1 MA's), (68, 7102), (83, 7171), (89, 7240),

Gene: FireCastle_14 Start: 11130, Stop: 11495, Start Num: 30
Candidate Starts for FireCastle_14:
(Start: 30 @11130 has 62 MA's), (56, 11220), (61, 11244), (70, 11295), (78, 11328), (85, 11376),

Gene: FroggyToad_10 Start: 6850, Stop: 7176, Start Num: 39
Candidate Starts for FroggyToad_10:
(16, 6604), (20, 6679), (Start: 36 @6847 has 1 MA's), (Start: 39 @6850 has 33 MA's), (47, 6880), (55, 6904), (77, 7012), (79, 7018),

Gene: FrumpyGal_12 Start: 7966, Stop: 8316, Start Num: 30
Candidate Starts for FrumpyGal_12:
(13, 7666), (28, 7960), (Start: 30 @7966 has 62 MA's), (54, 8032), (61, 8071), (63, 8086), (85, 8200), (88, 8251),

Gene: GMA1_10 Start: 7189, Stop: 7524, Start Num: 36
Candidate Starts for GMA1_10:
(Start: 36 @7189 has 1 MA's), (46, 7219), (52, 7240), (58, 7273), (72, 7339), (92, 7483), (93, 7492),

Gene: Galactica_14 Start: 12813, Stop: 13166, Start Num: 31
Candidate Starts for Galactica_14:
(Start: 31 @12813 has 4 MA's), (Start: 34 @12822 has 7 MA's), (40, 12831), (63, 12936), (67, 12957), (79, 13008), (85, 13050), (93, 13134),

Gene: GemG_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for GemG_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Gingerbug_13 Start: 9134, Stop: 9493, Start Num: 34
Candidate Starts for Gingerbug_13:
(14, 8819), (Start: 34 @9134 has 7 MA's), (37, 9140), (59, 9224), (63, 9248), (75, 9308), (77, 9314), (83, 9356), (85, 9374), (91, 9446), (93, 9458),

Gene: Gizermo_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Gizermo_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Goodman_15 Start: 11381, Stop: 11746, Start Num: 30
Candidate Starts for Goodman_15:
(15, 11138), (19, 11174), (21, 11261), (26, 11342), (Start: 30 @11381 has 62 MA's), (56, 11471), (70, 11546), (71, 11549), (78, 11579), (83, 11609), (95, 11732), (96, 11735),

Gene: Gudmit_11 Start: 7618, Stop: 7950, Start Num: 39
Candidate Starts for Gudmit_11:
(Start: 39 @7618 has 33 MA's), (45, 7642), (55, 7672), (58, 7690), (66, 7735), (67, 7738), (93, 7909),

Gene: Guzman_18 Start: 9580, Stop: 9939, Start Num: 30
Candidate Starts for Guzman_18:
(Start: 30 @9580 has 62 MA's), (Start: 48 @9634 has 1 MA's), (59, 9685), (61, 9694), (83, 9805), (85, 9823), (87, 9862), (91, 9895),

Gene: HFrancette_12 Start: 7974, Stop: 8324, Start Num: 30
Candidate Starts for HFrancette_12:
(28, 7968), (Start: 30 @7974 has 62 MA's), (54, 8040), (61, 8079), (63, 8094), (85, 8208),

Gene: Haley23_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Haley23_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Herod_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Herod_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Hiyaa_16 Start: 13841, Stop: 14200, Start Num: 30
Candidate Starts for Hiyaa_16:
(17, 13631), (25, 13796), (Start: 30 @13841 has 62 MA's), (Start: 31 @13847 has 4 MA's), (Start: 34 @13856 has 7 MA's), (40, 13865), (59, 13946), (64, 13976), (67, 13991), (69, 13994), (75, 14030), (93,

14168),

Gene: Hortense_10 Start: 7051, Stop: 7380, Start Num: 32
Candidate Starts for Hortense_10:
(Start: 32 @7051 has 56 MA's), (35, 7057), (55, 7114), (83, 7249), (94, 7363),

Gene: Howe_10 Start: 7051, Stop: 7380, Start Num: 32
Candidate Starts for Howe_10:
(Start: 32 @7051 has 56 MA's), (35, 7057), (55, 7114), (83, 7249), (94, 7363),

Gene: Htur_14 Start: 11384, Stop: 11749, Start Num: 30
Candidate Starts for Htur_14:
(Start: 30 @11384 has 62 MA's), (49, 11441), (54, 11459), (55, 11468), (56, 11474), (67, 11534), (70, 11549), (71, 11552), (78, 11582), (80, 11588), (83, 11612), (95, 11735),

Gene: Hugley_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Hugley_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Hyzer_10 Start: 7710, Stop: 8039, Start Num: 32
Candidate Starts for Hyzer_10:
(Start: 32 @7710 has 56 MA's), (35, 7716), (55, 7773), (83, 7908), (94, 8022),

Gene: Ididsumtinwong_11 Start: 7869, Stop: 8219, Start Num: 30
Candidate Starts for Ididsumtinwong_11:
(13, 7569), (28, 7863), (Start: 30 @7869 has 62 MA's), (75, 8046), (85, 8100), (94, 8196),

Gene: Ignacio_12 Start: 7974, Stop: 8324, Start Num: 30
Candidate Starts for Ignacio_12:
(28, 7968), (Start: 30 @7974 has 62 MA's), (54, 8040), (61, 8079), (63, 8094), (85, 8208),

Gene: IndiRoo_14 Start: 9408, Stop: 9773, Start Num: 30
Candidate Starts for IndiRoo_14:
(21, 9288), (Start: 30 @9408 has 62 MA's), (44, 9447), (53, 9480), (61, 9522), (70, 9573), (78, 9606), (80, 9612), (83, 9636), (93, 9738), (95, 9759),

Gene: Invectra_11 Start: 7351, Stop: 7680, Start Num: 32
Candidate Starts for Invectra_11:
(Start: 32 @7351 has 56 MA's), (35, 7357), (55, 7414), (83, 7549), (94, 7663),

Gene: JCole_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for JCole_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Jace_9 Start: 7387, Stop: 7716, Start Num: 39
Candidate Starts for Jace_9:
(Start: 39 @7387 has 33 MA's), (79, 7561), (92, 7678),

Gene: Jakelyne_18 Start: 9321, Stop: 9680, Start Num: 30
Candidate Starts for Jakelyne_18:
(Start: 30 @9321 has 62 MA's), (Start: 48 @9375 has 1 MA's), (59, 9426), (83, 9546), (85, 9564), (87, 9603), (91, 9636),

Gene: Jalleen_11 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Jalleen_11:
(16, 6603), (20, 6678), (Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Jera_15 Start: 10462, Stop: 10827, Start Num: 30
Candidate Starts for Jera_15:
(26, 10423), (Start: 30 @10462 has 62 MA's), (51, 10525), (56, 10552), (70, 10627), (71, 10630), (78, 10660), (80, 10666), (95, 10813),

Gene: Johann_15 Start: 11381, Stop: 11746, Start Num: 30
Candidate Starts for Johann_15:
(15, 11138), (19, 11174), (21, 11261), (26, 11342), (Start: 30 @11381 has 62 MA's), (56, 11471), (70, 11546), (71, 11549), (78, 11579), (83, 11609), (95, 11732), (96, 11735),

Gene: Keanu_16 Start: 13893, Stop: 14246, Start Num: 31
Candidate Starts for Keanu_16:
(17, 13680), (Start: 31 @13893 has 4 MA's), (Start: 34 @13902 has 7 MA's), (40, 13911), (55, 13971), (56, 13977), (57, 13983), (60, 13995), (69, 14040), (85, 14130), (93, 14214), (96, 14238),

Gene: Kita_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Kita_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Kokushibo_16 Start: 13862, Stop: 14215, Start Num: 31
Candidate Starts for Kokushibo_16:
(17, 13646), (25, 13811), (Start: 31 @13862 has 4 MA's), (Start: 34 @13871 has 7 MA's), (40, 13880), (60, 13964), (69, 14009), (93, 14183),

Gene: Labella_16 Start: 11350, Stop: 11715, Start Num: 30
Candidate Starts for Labella_16:
(26, 11311), (Start: 30 @11350 has 62 MA's), (51, 11413), (56, 11440), (70, 11515), (71, 11518), (78, 11548), (80, 11554), (95, 11701),

Gene: Lamberg_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Lamberg_10:
(20, 6678), (Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Lesiram_16 Start: 9927, Stop: 10286, Start Num: 34
Candidate Starts for Lesiram_16:
(14, 9612), (Start: 34 @9927 has 7 MA's), (59, 10017), (63, 10041), (71, 10080), (83, 10149), (85, 10167), (91, 10239), (93, 10251),

Gene: Linayshia_14 Start: 11376, Stop: 11741, Start Num: 30
Candidate Starts for Linayshia_14:
(Start: 30 @11376 has 62 MA's), (49, 11433), (54, 11451), (55, 11460), (56, 11466), (67, 11526), (70, 11541), (71, 11544), (78, 11574), (80, 11580), (83, 11604), (95, 11727),

Gene: Lishka_11 Start: 7833, Stop: 8183, Start Num: 30
Candidate Starts for Lishka_11:
(13, 7533), (28, 7827), (Start: 30 @7833 has 62 MA's), (75, 8010), (85, 8064), (94, 8160),

Gene: LordFarquaad_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for LordFarquaad_10:

(Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Losacky_18 Start: 9499, Stop: 9804, Start Num: 48
Candidate Starts for Losacky_18:
(Start: 30 @9445 has 62 MA's), (Start: 48 @9499 has 1 MA's), (59, 9550), (61, 9559), (83, 9670), (85, 9688), (87, 9727), (91, 9760),

Gene: Lton_10 Start: 6856, Stop: 7185, Start Num: 39
Candidate Starts for Lton_10:
(Start: 39 @6856 has 33 MA's), (44, 6874), (47, 6886), (55, 6910), (65, 6964), (69, 6979), (90, 7123), (93, 7147),

Gene: Madavieve_10 Start: 7710, Stop: 8039, Start Num: 32
Candidate Starts for Madavieve_10:
(Start: 32 @7710 has 56 MA's), (35, 7716), (55, 7773), (58, 7791), (83, 7908), (89, 7980), (94, 8022),

Gene: Madeline_10 Start: 7710, Stop: 8039, Start Num: 32
Candidate Starts for Madeline_10:
(Start: 32 @7710 has 56 MA's), (35, 7716), (55, 7773), (83, 7908), (94, 8022),

Gene: Manasvini_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Manasvini_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Maridalia_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Maridalia_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Mariel_18 Start: 9476, Stop: 9835, Start Num: 30
Candidate Starts for Mariel_18:
(4, 9005), (Start: 30 @9476 has 62 MA's), (50, 9536), (59, 9581), (61, 9590), (83, 9701), (85, 9719), (91, 9791),

Gene: Matteo_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Matteo_10:
(Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Mbo4_10 Start: 7518, Stop: 7844, Start Num: 39
Candidate Starts for Mbo4_10:
(Start: 39 @7518 has 33 MA's), (47, 7548), (56, 7578), (83, 7707), (91, 7797),

Gene: Mcklovin_11 Start: 8168, Stop: 8497, Start Num: 32
Candidate Starts for Mcklovin_11:
(Start: 32 @8168 has 56 MA's), (35, 8174), (55, 8231), (83, 8366), (94, 8480),

Gene: MenE_17 Start: 9433, Stop: 9792, Start Num: 30
Candidate Starts for MenE_17:
(Start: 30 @9433 has 62 MA's), (Start: 48 @9487 has 1 MA's), (59, 9538), (61, 9547), (83, 9658), (85, 9676), (87, 9715), (91, 9748),

Gene: MichaelScott_11 Start: 7351, Stop: 7680, Start Num: 32
Candidate Starts for MichaelScott_11:
(Start: 32 @7351 has 56 MA's), (35, 7357), (55, 7414), (67, 7480), (83, 7549), (94, 7663),

Gene: Milani_15 Start: 10059, Stop: 10424, Start Num: 30
Candidate Starts for Milani_15:
(Start: 30 @10059 has 62 MA's), (44, 10098), (61, 10173), (70, 10224), (78, 10257), (80, 10263), (83, 10287), (93, 10389), (95, 10410),

Gene: Mocha12_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Mocha12_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Mojorita_11 Start: 8143, Stop: 8496, Start Num: 30
Candidate Starts for Mojorita_11:
(27, 8122), (28, 8137), (Start: 30 @8143 has 62 MA's), (54, 8209), (59, 8239), (75, 8323), (94, 8473),

Gene: Moosehead_10 Start: 6799, Stop: 7128, Start Num: 39
Candidate Starts for Moosehead_10:
(Start: 39 @6799 has 33 MA's), (44, 6817), (47, 6829), (55, 6853), (65, 6907), (69, 6922), (90, 7066),

Gene: NCRodriguez_18 Start: 9488, Stop: 9793, Start Num: 48
Candidate Starts for NCRodriguez_18:
(Start: 30 @9434 has 62 MA's), (Start: 48 @9488 has 1 MA's), (59, 9539), (61, 9548), (83, 9659), (85, 9677), (87, 9716), (91, 9749),

Gene: Neobush_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Neobush_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Nettuno_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Nettuno_10:
(20, 6678), (Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Nymphadora_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Nymphadora_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Ohgeesy_10 Start: 7057, Stop: 7386, Start Num: 32
Candidate Starts for Ohgeesy_10:
(Start: 32 @7057 has 56 MA's), (35, 7063), (55, 7120), (83, 7255), (94, 7369),

Gene: Olympi_16 Start: 11372, Stop: 11737, Start Num: 30
Candidate Starts for Olympi_16:
(21, 11252), (26, 11333), (Start: 30 @11372 has 62 MA's), (56, 11462), (70, 11537), (71, 11540), (78, 11570), (83, 11600), (95, 11723), (96, 11726),

Gene: OneDirection_10 Start: 6800, Stop: 7129, Start Num: 39
Candidate Starts for OneDirection_10:
(Start: 39 @6800 has 33 MA's), (44, 6818), (47, 6830), (77, 6962), (79, 6968), (90, 7067), (93, 7091),

Gene: Oregano_11 Start: 7022, Stop: 7351, Start Num: 32
Candidate Starts for Oregano_11:
(Start: 32 @7022 has 56 MA's), (35, 7028), (55, 7085), (83, 7220), (94, 7334),

Gene: PantheRoc_10 Start: 7057, Stop: 7386, Start Num: 32

Candidate Starts for PantheRoc_10:
(Start: 32 @7057 has 56 MA's), (35, 7063), (55, 7120), (83, 7255), (94, 7369),

Gene: PapayaSalad_11 Start: 7841, Stop: 8191, Start Num: 30
Candidate Starts for PapayaSalad_11:
(13, 7541), (28, 7835), (Start: 30 @7841 has 62 MA's), (75, 8018), (85, 8072), (94, 8168),

Gene: Parvaparticeps_39 Start: 28829, Stop: 28458, Start Num: 29
Candidate Starts for Parvaparticeps_39:
(29, 28829), (42, 28796), (50, 28763), (56, 28733), (59, 28718), (63, 28694), (69, 28670), (75, 28634), (76, 28631), (81, 28607), (91, 28508), (97, 28463),

Gene: Pepperoni_10 Start: 7150, Stop: 7479, Start Num: 39
Candidate Starts for Pepperoni_10:
(Start: 39 @7150 has 33 MA's), (44, 7168), (47, 7180), (55, 7204), (65, 7258), (69, 7273), (90, 7417), (93, 7441),

Gene: PermaG_15 Start: 11444, Stop: 11809, Start Num: 30
Candidate Starts for PermaG_15:
(Start: 30 @11444 has 62 MA's), (56, 11534), (70, 11609), (71, 11612), (78, 11642), (80, 11648), (96, 11798),

Gene: PhillyJawn_17 Start: 9219, Stop: 9524, Start Num: 48
Candidate Starts for PhillyJawn_17:
(Start: 30 @9165 has 62 MA's), (Start: 48 @9219 has 1 MA's), (59, 9270), (61, 9279), (83, 9390), (85, 9408), (87, 9447), (91, 9480),

Gene: Phingu_19 Start: 9378, Stop: 9683, Start Num: 48
Candidate Starts for Phingu_19:
(Start: 30 @9324 has 62 MA's), (Start: 48 @9378 has 1 MA's), (59, 9429), (61, 9438), (83, 9549), (85, 9567), (87, 9606), (91, 9639),

Gene: Phonegingi_16 Start: 9165, Stop: 9524, Start Num: 30
Candidate Starts for Phonegingi_16:
(Start: 30 @9165 has 62 MA's), (Start: 48 @9219 has 1 MA's), (59, 9270), (83, 9390), (85, 9408), (87, 9447), (91, 9480),

Gene: PhriskyACE_10 Start: 6855, Stop: 7184, Start Num: 32
Candidate Starts for PhriskyACE_10:
(Start: 32 @6855 has 56 MA's), (35, 6861), (55, 6918), (58, 6936), (59, 6939), (83, 7053), (94, 7167),

Gene: Picard_11 Start: 8143, Stop: 8496, Start Num: 30
Candidate Starts for Picard_11:
(13, 7846), (27, 8122), (28, 8137), (Start: 30 @8143 has 62 MA's), (54, 8209), (59, 8239), (75, 8323), (94, 8473),

Gene: Piccadilly_12 Start: 7965, Stop: 8315, Start Num: 30
Candidate Starts for Piccadilly_12:
(13, 7665), (28, 7959), (Start: 30 @7965 has 62 MA's), (54, 8031), (61, 8070), (63, 8085), (85, 8199), (88, 8250),

Gene: Pickett_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Pickett_10:

(Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Pickles13_16 Start: 9335, Stop: 9694, Start Num: 30
Candidate Starts for Pickles13_16:
(14, 9044), (Start: 30 @9335 has 62 MA's), (Start: 48 @9389 has 1 MA's), (59, 9440), (83, 9560), (85, 9578), (87, 9617), (91, 9650),

Gene: Polly_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Polly_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Powerball_10 Start: 6856, Stop: 7185, Start Num: 32
Candidate Starts for Powerball_10:
(Start: 32 @6856 has 56 MA's), (35, 6862), (55, 6919), (83, 7054), (94, 7168),

Gene: REQ3_44 Start: 24247, Stop: 24573, Start Num: 39
Candidate Starts for REQ3_44:
(Start: 39 @24247 has 33 MA's), (59, 24328), (74, 24406), (91, 24529),

Gene: Raleigh_11 Start: 8268, Stop: 8621, Start Num: 30
Candidate Starts for Raleigh_11:
(27, 8247), (28, 8262), (Start: 30 @8268 has 62 MA's), (63, 8388), (79, 8460), (94, 8598),

Gene: Rasovi_14 Start: 11384, Stop: 11749, Start Num: 30
Candidate Starts for Rasovi_14:
(Start: 30 @11384 has 62 MA's), (49, 11441), (54, 11459), (55, 11468), (56, 11474), (67, 11534), (70, 11549), (71, 11552), (78, 11582), (80, 11588), (83, 11612), (95, 11735),

Gene: RavenCo17_10 Start: 7679, Stop: 8008, Start Num: 39
Candidate Starts for RavenCo17_10:
(3, 7172), (5, 7223), (6, 7250), (20, 7499), (Start: 39 @7679 has 33 MA's), (77, 7841), (79, 7847),

Gene: Rizz_12 Start: 7351, Stop: 7680, Start Num: 32
Candidate Starts for Rizz_12:
(Start: 32 @7351 has 56 MA's), (35, 7357), (55, 7414), (67, 7480), (83, 7549), (94, 7663),

Gene: Rootkit7_14 Start: 11215, Stop: 11580, Start Num: 30
Candidate Starts for Rootkit7_14:
(26, 11176), (Start: 30 @11215 has 62 MA's), (51, 11278), (56, 11305), (70, 11380), (71, 11383), (78, 11413), (80, 11419), (95, 11566),

Gene: SBlackberry_14 Start: 11221, Stop: 11586, Start Num: 30
Candidate Starts for SBlackberry_14:
(26, 11182), (Start: 30 @11221 has 62 MA's), (51, 11284), (56, 11311), (70, 11386), (71, 11389), (78, 11419), (80, 11425), (95, 11572),

Gene: SV1_11 Start: 8041, Stop: 8391, Start Num: 30
Candidate Starts for SV1_11:
(13, 7741), (22, 7924), (28, 8035), (Start: 30 @8041 has 62 MA's), (59, 8134), (75, 8218), (85, 8272), (91, 8344), (94, 8368),

Gene: Sahara_10 Start: 6850, Stop: 7176, Start Num: 39
Candidate Starts for Sahara_10:

(Start: 39 @6850 has 33 MA's), (47, 6880), (55, 6904), (79, 7018),

Gene: Samman98_11 Start: 7352, Stop: 7681, Start Num: 32
Candidate Starts for Samman98_11:
(Start: 32 @7352 has 56 MA's), (35, 7358), (55, 7415), (62, 7457), (67, 7481), (83, 7550), (94, 7664),

Gene: Savage_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Savage_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Schlegelian_12 Start: 7965, Stop: 8315, Start Num: 30
Candidate Starts for Schlegelian_12:
(13, 7665), (28, 7959), (Start: 30 @7965 has 62 MA's), (54, 8031), (61, 8070), (63, 8085), (85, 8199), (88, 8250),

Gene: ScoobySnack_15 Start: 9034, Stop: 9390, Start Num: 30
Candidate Starts for ScoobySnack_15:
(Start: 30 @9034 has 62 MA's), (50, 9094), (59, 9139), (85, 9277), (87, 9316), (91, 9349),

Gene: Sekhmet_11 Start: 7351, Stop: 7680, Start Num: 32
Candidate Starts for Sekhmet_11:
(Start: 32 @7351 has 56 MA's), (35, 7357), (55, 7414), (83, 7549), (94, 7663),

Gene: Shlim410_10 Start: 7051, Stop: 7380, Start Num: 32
Candidate Starts for Shlim410_10:
(Start: 32 @7051 has 56 MA's), (35, 7057), (55, 7114), (83, 7249), (94, 7363),

Gene: Sidious_10 Start: 7052, Stop: 7381, Start Num: 32
Candidate Starts for Sidious_10:
(Start: 32 @7052 has 56 MA's), (35, 7058), (55, 7115), (64, 7166), (83, 7250), (94, 7364),

Gene: SoJo_11 Start: 8060, Stop: 8413, Start Num: 30
Candidate Starts for SoJo_11:
(28, 8054), (Start: 30 @8060 has 62 MA's), (59, 8156), (63, 8180), (85, 8294), (86, 8300), (94, 8390),

Gene: SoilAssassin_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for SoilAssassin_10:
(Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Spocter_16 Start: 13835, Stop: 14188, Start Num: 31
Candidate Starts for Spocter_16:
(17, 13619), (25, 13784), (Start: 31 @13835 has 4 MA's), (Start: 34 @13844 has 7 MA's), (40, 13853), (60, 13937), (69, 13982), (93, 14156),

Gene: Sproutie_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Sproutie_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Suerte_10 Start: 6850, Stop: 7179, Start Num: 32
Candidate Starts for Suerte_10:
(Start: 32 @6850 has 56 MA's), (35, 6856), (55, 6913), (67, 6979), (83, 7048), (94, 7162),

Gene: Suscepit_10 Start: 7709, Stop: 8038, Start Num: 32

Candidate Starts for Suscepit_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: SushiChef_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for SushiChef_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Sweetums_17 Start: 10025, Stop: 10384, Start Num: 34
Candidate Starts for Sweetums_17:
(Start: 34 @10025 has 7 MA's), (59, 10115), (81, 10226), (83, 10247), (84, 10253), (85, 10265), (91, 10337), (93, 10349),

Gene: Tayonia_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Tayonia_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Teng_16 Start: 9948, Stop: 10307, Start Num: 34
Candidate Starts for Teng_16:
(14, 9633), (Start: 34 @9948 has 7 MA's), (59, 10038), (63, 10062), (71, 10101), (83, 10170), (85, 10188), (91, 10260), (93, 10272),

Gene: ThankyouJordi_10 Start: 7707, Stop: 8036, Start Num: 32
Candidate Starts for ThankyouJordi_10:
(Start: 32 @7707 has 56 MA's), (44, 7737), (55, 7770), (83, 7905), (94, 8019),

Gene: Thimann_11 Start: 7352, Stop: 7681, Start Num: 32
Candidate Starts for Thimann_11:
(Start: 32 @7352 has 56 MA's), (35, 7358), (55, 7415), (83, 7550), (94, 7664),

Gene: TimTam_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for TimTam_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: TinyDot_12 Start: 7971, Stop: 8303, Start Num: 38
Candidate Starts for TinyDot_12:
(Start: 38 @7971 has 1 MA's), (93, 8271),

Gene: ToastyFinz_10 Start: 7921, Stop: 8274, Start Num: 30
Candidate Starts for ToastyFinz_10:
(28, 7915), (Start: 30 @7921 has 62 MA's), (59, 8017), (70, 8077), (79, 8113), (94, 8251),

Gene: Trumpet_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Trumpet_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Tubberson_11 Start: 8060, Stop: 8413, Start Num: 30
Candidate Starts for Tubberson_11:
(28, 8054), (Start: 30 @8060 has 62 MA's), (59, 8156), (63, 8180), (85, 8294), (86, 8300), (94, 8390),

Gene: TuertoX_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for TuertoX_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: TurboVicky_14 Start: 11215, Stop: 11580, Start Num: 30
Candidate Starts for TurboVicky_14:
(26, 11176), (Start: 30 @11215 has 62 MA's), (51, 11278), (56, 11305), (70, 11380), (71, 11383), (78, 11413), (80, 11419), (95, 11566),

Gene: Tuti_11 Start: 7351, Stop: 7680, Start Num: 32
Candidate Starts for Tuti_11:
(Start: 32 @7351 has 56 MA's), (35, 7357), (55, 7414), (67, 7480), (83, 7549), (94, 7663),

Gene: Twinkle_10 Start: 7051, Stop: 7380, Start Num: 32
Candidate Starts for Twinkle_10:
(Start: 32 @7051 has 56 MA's), (35, 7057), (55, 7114), (83, 7249), (94, 7363),

Gene: Typher_16 Start: 11349, Stop: 11714, Start Num: 30
Candidate Starts for Typher_16:
(26, 11310), (Start: 30 @11349 has 62 MA's), (51, 11412), (56, 11439), (70, 11514), (71, 11517), (78, 11547), (80, 11553), (95, 11700),

Gene: Vasanti_10 Start: 6850, Stop: 7179, Start Num: 36
Candidate Starts for Vasanti_10:
(12, 6532), (16, 6607), (Start: 36 @6850 has 1 MA's), (47, 6883), (55, 6907), (79, 7021),

Gene: Violeta_18 Start: 9263, Stop: 9622, Start Num: 30
Candidate Starts for Violeta_18:
(Start: 30 @9263 has 62 MA's), (Start: 48 @9317 has 1 MA's), (59, 9368), (61, 9377), (83, 9488), (85, 9506), (87, 9545), (91, 9578),

Gene: Vondra_12 Start: 7974, Stop: 8324, Start Num: 30
Candidate Starts for Vondra_12:
(28, 7968), (Start: 30 @7974 has 62 MA's), (54, 8040), (61, 8079), (63, 8094), (85, 8208), (88, 8259),

Gene: Warren_17 Start: 9362, Stop: 9721, Start Num: 30
Candidate Starts for Warren_17:
(Start: 30 @9362 has 62 MA's), (Start: 48 @9416 has 1 MA's), (59, 9467), (61, 9476), (83, 9587), (85, 9605), (87, 9644), (91, 9677),

Gene: WelcomeAyanna_10 Start: 7707, Stop: 8036, Start Num: 32
Candidate Starts for WelcomeAyanna_10:
(Start: 32 @7707 has 56 MA's), (44, 7737), (55, 7770), (83, 7905), (94, 8019),

Gene: Whiteclaw_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Whiteclaw_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Winchester007_18 Start: 9305, Stop: 9664, Start Num: 30
Candidate Starts for Winchester007_18:
(Start: 30 @9305 has 62 MA's), (Start: 48 @9359 has 1 MA's), (59, 9410), (61, 9419), (83, 9530), (85, 9548), (87, 9587), (91, 9620),

Gene: WinkNick_11 Start: 7352, Stop: 7681, Start Num: 32
Candidate Starts for WinkNick_11:
(Start: 32 @7352 has 56 MA's), (35, 7358), (55, 7415), (62, 7457), (67, 7481), (83, 7550), (94, 7664),

Gene: Wrackline_21 Start: 10613, Stop: 10966, Start Num: 34
Candidate Starts for Wrackline_21:
(11, 10277), (Start: 34 @10613 has 7 MA's), (41, 10625), (46, 10646), (81, 10808), (85, 10847), (88, 10898),

Gene: Yeet412_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Yeet412_10:
(Start: 39 @6834 has 33 MA's), (47, 6864), (55, 6888), (79, 7002),

Gene: Yeezy_10 Start: 7054, Stop: 7383, Start Num: 32
Candidate Starts for Yeezy_10:
(Start: 32 @7054 has 56 MA's), (35, 7060), (55, 7117), (83, 7252), (94, 7366),

Gene: Yinzer_10 Start: 6834, Stop: 7160, Start Num: 39
Candidate Starts for Yinzer_10:
(Start: 39 @6834 has 33 MA's), (55, 6888), (81, 7014), (90, 7101),

Gene: Zameen_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Zameen_10:
(Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),

Gene: Zanella_14 Start: 11218, Stop: 11583, Start Num: 30
Candidate Starts for Zanella_14:
(26, 11179), (Start: 30 @11218 has 62 MA's), (51, 11281), (56, 11308), (70, 11383), (71, 11386), (78, 11416), (80, 11422), (95, 11569),

Gene: Zirinka_10 Start: 7709, Stop: 8038, Start Num: 32
Candidate Starts for Zirinka_10:
(23, 7616), (Start: 32 @7709 has 56 MA's), (35, 7715), (55, 7772), (83, 7907), (94, 8021),