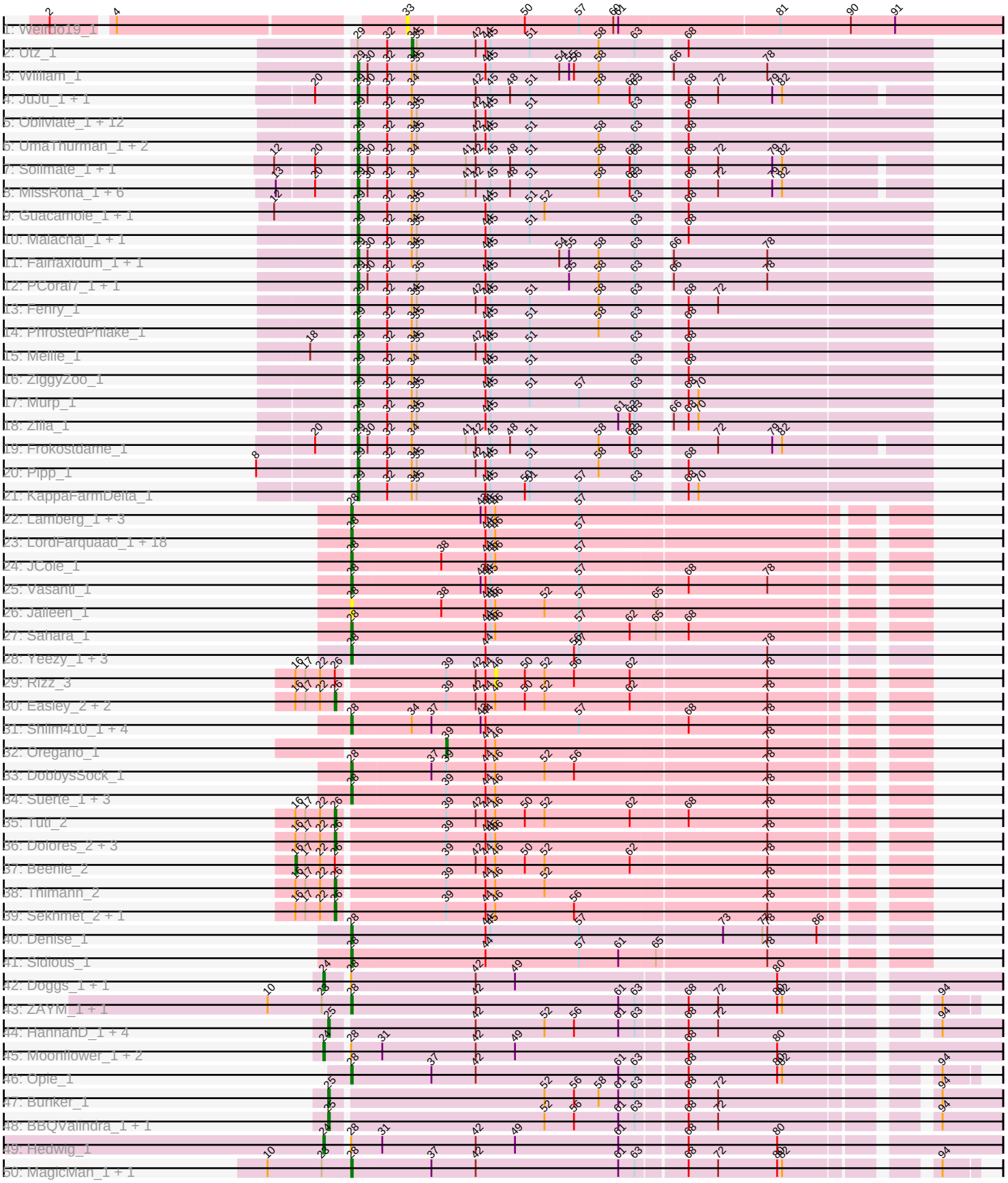
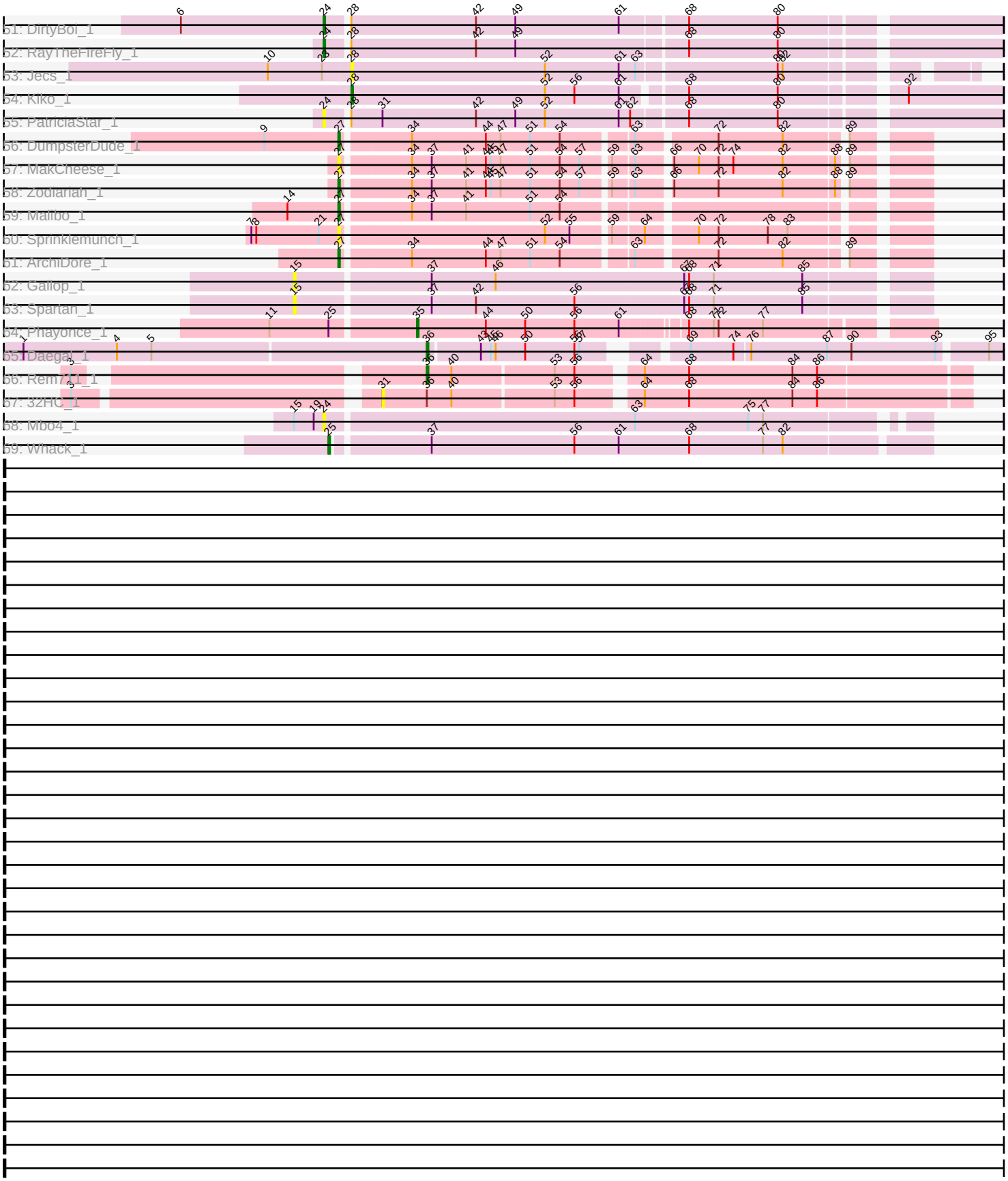
Pham 330581


1: Weirdo19_1
2: Otz_1
3: William_1
4: JuJu_1 + 1
5: Obliviate_1 + 12
6: UmaThurman_1 + 2
7: Solimate_1 + 1
8: MissRona_1 + 6
9: Guacamole_1 + 1
10: Malachai_1 + 1
11: Fairaxidum_1 + 1
12: PCorai7_1 + 1
13: Fenry_1
14: PhrostedFlake_1
15: Mellie_1
16: ZiggyZoo_1
17: Murp_1
18: Zilla_1
19: Frokostdame_1
20: Pipp_1
21: KappaFarmDelta_1
22: Lamberg_1 + 3
23: LordFarquaad_1 + 18
24: JCole_1
25: Vasanti_1
26: Jaileen_1
27: Sahara_1
28: Yeezy_1 + 3
29: Rizz_3
30: Easley_2 + 2
31: Shlim410_1 + 4
32: Oregano_1
33: DobbysSock_1
34: Suerte_1 + 3
35: Tuti_2
36: Dolores_2 + 3
37: Beenie_2
38: Thimann_2
39: Sekhmet_2 + 1
40: Denise_1
41: Sidious_1
42: Doggs_1 + 1
43: ZAYM_1 + 1
44: HannahD_1 + 4
45: Moonflower_1 + 2
46: Opie_1
47: Bunker_1
48: BBQValindra_1 + 1
49: Hedwig_1
50: MagicMan_1 + 1

Pham 330581


51: DirtyBoi_1
52: RayTheFireFly_1
53: Jecs_1
54: Kiko_1
55: PatriciaStar_1
56: DumpsterDude_1
57: MakCheese_1
58: Zodiarian_1
59: Malibo_1
60: Sprinklemunch_1
61: ArchiDore_1
62: Gallop_1
63: Spartan_1
64: Phayonce_1
65: Daegal_1
66: Rem721_1
67: 32HC_1
68: Mb04_1
69: Whack_1

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 330581 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330581 has 142 members, 19 are drafts.

Phages represented in each track:
- Track 1 : Weirdo19_1
- Track 2 : Utz_1
- Track 3 : William_1
- Track 4 : JuJu_1, CheeseSpider_1
- Track 5 : Obliviate_1, CaptainKirk2_1, Delian_1, Lysidious_1, Archis_1, Jalammah_1, Melba_1, Barco_1, Samba_1, Wisp_1, MintFen_1, BlingBling_1, Hitter_1
- Track 6 : UmaThurman_1, Zarbodnamra_1, Wocket_1
- Track 7 : Soilmate_1, CarolAnn_1
- Track 8 : MissRona_1, Walrus_1, Azula_1, Blueberry_1, Petra_1, Gambino_1, Blino_1
- Track 9 : Guacamole_1, JasperJr_1
- Track 10 : Malachai_1, Begonia_1
- Track 11 : Fairfaxidum_1, PrincePatrick_1
- Track 12 : PCoral7_1, Toast_1
- Track 13 : Fenry_1
- Track 14 : PhrostedPhlake_1
- Track 15 : Mellie_1
- Track 16 : ZiggyZoo_1
- Track 17 : Murp_1
- Track 18 : Zilla_1
- Track 19 : Frokostdame_1
- Track 20 : Pipp_1
- Track 21 : KappaFarmDelta_1
- Track 22 : Lamberg_1, EdnaMode_1, Nettuno_1, Pickett_1
- Track 23 : LordFarquaad_1, Cynthia_1, Clap_1, Yeet412_1, GemG_1, Whiteclaw_1, Attis_1, Mocha12_1, Gizermo_1, Sproutie_1, SoilAssassin_1, TuertoX_1, Yinzer_1, FroggyToad_1, Ebert_1, Matteo_1, Savage_1, Bjanes7_1, Haley23_1
- Track 24 : JCole_1
- Track 25 : Vasanti_1
- Track 26 : Jalleen_1
- Track 27 : Sahara_1
- Track 28 : Yeezy_1, BaxterFox_1, PantheRoc_1, Ohgeesy_1
- Track 29 : Rizz_3
- Track 30 : Easley_2, Clark_2, MichaelScott_2
- Track 31 : Shlim410_1, Hortense_1, Howe_1, Twinkle_1, Adora_1
- Track 32 : Oregano_1

• Track 33 : DobbysSock_1
• Track 34 : Suerte_1, Powerball_1, Dorito_1, PhriskyACE_1
• Track 35 : Tuti_2
• Track 36 : Dolores_2, Samman98_2, WinkNick_2, Annalisa_2
• Track 37 : Beenie_2
• Track 38 : Thimann_2
• Track 39 : Sekhmet_2, Invectra_2
• Track 40 : Denise_1
• Track 41 : Sidious_1
• Track 42 : Doggs_1, Coriander_1
• Track 43 : ZAYM_1, TaronosaurasRx_1
• Track 44 : HannahD_1, GEazy_1, Bowser_1, Eyes_1, NaLuna_1
• Track 45 : Moonflower_1, Dmitri_1, Chipko_1
• Track 46 : Opie_1
• Track 47 : Bunker_1
• Track 48 : BBQValindra_1, BackstagePass_1
• Track 49 : Hedwig_1
• Track 50 : MagicMan_1, Schnabeltier_1
• Track 51 : DirtyBoi_1
• Track 52 : RayTheFireFly_1
• Track 53 : Jecs_1
• Track 54 : Kiko_1
• Track 55 : PatriciaStar_1
• Track 56 : DumpsterDude_1
• Track 57 : MakCheese_1
• Track 58 : Zodiariah_1
• Track 59 : Malibo_1
• Track 60 : Sprinklemunch_1
• Track 61 : ArchiDore_1
• Track 62 : Gallop_1
• Track 63 : Spartan_1
• Track 64 : Phayonce_1
• Track 65 : Daegal_1
• Track 66 : Rem711_1
• Track 67 : 32HC_1
• Track 68 : Mbo4_1
• Track 69 : Whack_1

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

The start number called the most often in the published annotations is 28, it was called in 45 of the 123 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Adora_1, Attis_1, BaxterFox_1, Bjanes7_1, Clap_1, Cynthia_1, Denise_1, DobbysSock_1, Dorito_1, Ebert_1, EdnaMode_1, FroggyToad_1, GemG_1, Gizermo_1, Haley23_1, Hortense_1, Howe_1, JCole_1, Jalleen_1, Jecs_1, Kiko_1, Lamberg_1, LordFarquaad_1, MagicMan_1, Matteo_1, Mocha12_1, Nettuno_1, Ohgeesy_1, Opie_1, PantheRoc_1, PhriskyACE_1, Pickett_1, Powerball_1, Sahara_1, Savage_1, Schnabeltier_1, Shlim410_1, Sidious_1, SoilAssassin_1,

Sproutie_1, Suerte_1, TaronosaurasRx_1, TuertoX_1, Twinkle_1, Vasanti_1, Whiteclaw_1, Yeet412_1, Yeezy_1, Yinzer_1, ZAYM_1,

Genes that have the "Most Annotated" start but do not call it:
• Chipko_1, Coriander_1, DirtyBoi_1, Dmitri_1, Doggs_1, Hedwig_1, Moonflower_1, PatriciaStar_1, RayTheFireFly_1,

Genes that do not have the "Most Annotated" start:
• 32HC_1, Annalisa_2, ArchiDore_1, Archis_1, Azula_1, BBQValindra_1, BackstagePass_1, Barco_1, Beenie_2, Begonia_1, BlingBling_1, Blino_1, Blueberry_1, Bowser_1, Bunker_1, CaptainKirk2_1, CarolAnn_1, CheeseSpider_1, Clark_2, Daegal_1, Delian_1, Dolores_2, DumpsterDude_1, Easley_2, Eyes_1, Fairfaxidum_1, Fenry_1, Frokostdame_1, GEazy_1, Gallop_1, Gambino_1, Guacamole_1, HannahD_1, Hitter_1, Invectra_2, Jalammah_1, JasperJr_1, JuJu_1, KappaFarmDelta_1, Lysidious_1, MakCheese_1, Malachai_1, Malibo_1, Mbo4_1, Melba_1, Mellie_1, MichaelScott_2, MintFen_1, MissRona_1, Murp_1, NaLuna_1, Obliviate_1, Oregano_1, PCoral7_1, Petra_1, Phayonce_1, PhrostedPhlake_1, Pipp_1, PrincePatrick_1, Rem711_1, Rizz_3, Samba_1, Samman98_2, Sekhmet_2, Soilmate_1, Spartan_1, Sprinklemunch_1, Thimann_2, Toast_1, Tuti_2, UmaThurman_1, Utz_1, Walrus_1, Weirdo19_1, Whack_1, William_1, WinkNick_2, Wisp_1, Wocket_1, Zarbodnamra_1, ZiggyZoo_1, Zilla_1, Zodiariah_1,

Summary by start number:

Start 15:
• Found in 3 of 142 (2.1%) of genes in pham
• No Manual Annotations of this start.
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Gallop_1 (ES), Spartan_1 (ES),

Start 16:
• Found in 13 of 142 (9.2%) of genes in pham
• Manual Annotations of this start: 1 of 123
• Called 7.7% of time when present
• Phage (with cluster) where this start called: Beenie_2 (CZ4),

Start 24:
• Found in 10 of 142 (7.0%) of genes in pham
• Manual Annotations of this start: 6 of 123
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chipko_1 (DB), Coriander_1 (DB), DirtyBoi_1 (DB), Dmitri_1 (DB), Doggs_1 (DB), Hedwig_1 (DB), Mbo4_1 (singleton), Moonflower_1 (DB), PatriciaStar_1 (DB), RayTheFireFly_1 (DB),

Start 25:
• Found in 10 of 142 (7.0%) of genes in pham
• Manual Annotations of this start: 8 of 123
• Called 90.0% of time when present
• Phage (with cluster) where this start called: BBQValindra_1 (DB), BackstagePass_1 (DB), Bowser_1 (DB), Bunker_1 (DB), Eyes_1 (DB), GEazy_1 (DB), HannahD_1 (DB), NaLuna_1 (DB), Whack_1 (singleton),

Start 26:

• Found in 13 of 142 (9.2%) of genes in pham
• Manual Annotations of this start: 11 of 123
• Called 84.6% of time when present
• Phage (with cluster) where this start called: Annalisa_2 (CZ4), Clark_2 (CZ4), Dolores_2 (CZ4), Easley_2 (CZ4), Invectra_2 (CZ4), MichaelScott_2 (CZ4), Samman98_2 (CZ4), Sekhmet_2 (CZ4), Thimann_2 (CZ4), Tuti_2 (CZ4), WinkNick_2 (CZ4),

Start 27:
• Found in 6 of 142 (4.2%) of genes in pham
• Manual Annotations of this start: 4 of 123
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArchiDore_1 (DW), DumpsterDude_1 (DW), MakCheese_1 (DW), Malibo_1 (DW), Sprinklemunch_1 (DW), Zodiariah_1 (DW),

Start 28:
• Found in 59 of 142 (41.5%) of genes in pham
• Manual Annotations of this start: 45 of 123
• Called 84.7% of time when present
• Phage (with cluster) where this start called: Adora_1 (CZ4), Attis_1 (CZ2), BaxterFox_1 (CZ3), Bjanes7_1 (CZ2), Clap_1 (CZ2), Cynthia_1 (CZ2), Denise_1 (CZ5), DobbysSock_1 (CZ4), Dorito_1 (CZ4), Ebert_1 (CZ2), EdnaMode_1 (CZ2), FroggyToad_1 (CZ2), GemG_1 (CZ2), Gizermo_1 (CZ2), Haley23_1 (CZ2), Hortense_1 (CZ4), Howe_1 (CZ4), JCole_1 (CZ2), Jalleen_1 (CZ2), Jecs_1 (DB), Kiko_1 (DB), Lamberg_1 (CZ2), LordFarquaad_1 (CZ2), MagicMan_1 (DB), Matteo_1 (CZ2), Mocha12_1 (CZ2), Nettuno_1 (CZ2), Ohgeesy_1 (CZ), Opie_1 (DB), PantheRoc_1 (CZ3), PhriskyACE_1 (CZ4), Pickett_1 (CZ2), Powerball_1 (CZ4), Sahara_1 (CZ2), Savage_1 (CZ2), Schnabeltier_1 (DB), Shlim410_1 (CZ4), Sidious_1 (CZ7), SoilAssassin_1 (CZ2), Sproutie_1 (CZ2), Suerte_1 (CZ4), TaronosaurasRx_1 (DB), TuertoX_1 (CZ2), Twinkle_1 (CZ4), Vasanti_1 (CZ2), Whiteclaw_1 (CZ2), Yeet412_1 (CZ2), Yeezy_1 (CZ3), Yinzer_1 (CZ2), ZAYM_1 (DB),

Start 29:
• Found in 46 of 142 (32.4%) of genes in pham
• Manual Annotations of this start: 43 of 123
• Called 97.8% of time when present
• Phage (with cluster) where this start called: Archis_1 (CV), Azula_1 (CV), Barco_1 (CV), Begonia_1 (CV), BlingBling_1 (CV), Blino_1 (CV), Blueberry_1 (CV), CaptainKirk2_1 (CV), CarolAnn_1 (CV), CheeseSpider_1 (CV), Delian_1 (CV), Fairfaxidum_1 (CV), Fenry_1 (CV), Frokostdame_1 (CV), Gambino_1 (CV), Guacamole_1 (CV), Hitter_1 (CV), Jalammah_1 (CV), JasperJr_1 (CV), JuJu_1 (CV), KappaFarmDelta_1 (CV), Lysidious_1 (CV), Malachai_1 (CV), Melba_1 (CV), Mellie_1 (CV), MintFen_1 (CV), MissRona_1 (CV), Murp_1 (CV), Obliviate_1 (CV), PCoral7_1 (CV), Petra_1 (CV), PhrostedPhlake_1 (CV), Pipp_1 (CV), PrincePatrick_1 (CV), Samba_1 (CV), Soilmate_1 (CV), Toast_1 (CV), UmaThurman_1 (CV), Walrus_1 (CV), William_1 (CV), Wisp_1 (CV), Wocket_1 (CV), Zarbodnamra_1 (CV), ZiggyZoo_1 (CV), Zilla_1 (CV),

Start 31:
• Found in 6 of 142 (4.2%) of genes in pham
• No Manual Annotations of this start.

• Called 16.7% of time when present
• Phage (with cluster) where this start called: 32HC_1 (Z),

Start 33:
• Found in 1 of 142 (0.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Weirdo19_1 (AH),

Start 34:
• Found in 54 of 142 (38.0%) of genes in pham
• Manual Annotations of this start: 1 of 123
• Called 1.9% of time when present
• Phage (with cluster) where this start called: Utz_1 (CV),

Start 35:
• Found in 34 of 142 (23.9%) of genes in pham
• Manual Annotations of this start: 1 of 123
• Called 2.9% of time when present
• Phage (with cluster) where this start called: Phayonce_1 (P5),

Start 36:
• Found in 3 of 142 (2.1%) of genes in pham
• Manual Annotations of this start: 2 of 123
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Daegal_1 (Q), Rem711_1 (Z),

Start 39:
• Found in 19 of 142 (13.4%) of genes in pham
• Manual Annotations of this start: 1 of 123
• Called 5.3% of time when present
• Phage (with cluster) where this start called: Oregano_1 (CZ4),

Start 46:
• Found in 47 of 142 (33.1%) of genes in pham
• No Manual Annotations of this start.
• Called 2.1% of time when present
• Phage (with cluster) where this start called: Rizz_3 (CZ4),

Summary by clusters:

There are 15 clusters represented in this pham: singleton, P5, CZ2, CZ3, DB, CZ7, CZ4, CZ5, Q, CZ, AH, DW, Z, CV, ES,

Info for manual annotations of cluster CV:
•Start number 29 was manually annotated 43 times for cluster CV.
•Start number 34 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ:
•Start number 28 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ2:

•Start number 28 was manually annotated 24 times for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 28 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 16 was manually annotated 1 time for cluster CZ4.
•Start number 26 was manually annotated 11 times for cluster CZ4.
•Start number 28 was manually annotated 10 times for cluster CZ4.
•Start number 39 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ5:
•Start number 28 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ7:
•Start number 28 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DB:
•Start number 24 was manually annotated 6 times for cluster DB.
•Start number 25 was manually annotated 7 times for cluster DB.
•Start number 28 was manually annotated 5 times for cluster DB.

Info for manual annotations of cluster DW:
•Start number 27 was manually annotated 4 times for cluster DW.

Info for manual annotations of cluster P5:
•Start number 35 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster Q:
•Start number 36 was manually annotated 1 time for cluster Q.

Info for manual annotations of cluster Z:
•Start number 36 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_1 Start: 209, Stop: 550, Start Num: 31
Candidate Starts for 32HC_1:
(3, 38), (31, 209), (Start: 36 @236 has 2 MA's), (40, 251), (53, 311), (56, 323), (64, 356), (68, 383), (84, 446), (86, 461),

Gene: Adora_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Adora_1:
(Start: 28 @14 has 45 MA's), (Start: 34 @50 has 1 MA's), (37, 62), (43, 92), (44, 95), (57, 152), (68, 215), (78, 263),

Gene: Annalisa_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Annalisa_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (44, 597), (45, 600), (46, 603), (78, 765),

Gene: ArchiDore_1 Start: 127, Stop: 453, Start Num: 27
Candidate Starts for ArchiDore_1:
(Start: 27 @127 has 4 MA's), (Start: 34 @166 has 1 MA's), (44, 211), (47, 220), (51, 238), (54, 256), (63, 295), (72, 340), (82, 379), (89, 412),

Gene: Archis_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Archis_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Attis_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Attis_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Azula_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for Azula_1:
(13, 15), (20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: BBQValindra_1 Start: 176, Stop: 550, Start Num: 25
Candidate Starts for BBQValindra_1:
(Start: 25 @176 has 8 MA's), (52, 302), (56, 320), (61, 347), (63, 356), (68, 383), (72, 401), (94, 515),

Gene: BackstagePass_1 Start: 149, Stop: 523, Start Num: 25
Candidate Starts for BackstagePass_1:
(Start: 25 @149 has 8 MA's), (52, 275), (56, 293), (61, 320), (63, 329), (68, 356), (72, 374), (94, 488),

Gene: Barco_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Barco_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: BaxterFox_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for BaxterFox_1:
(Start: 28 @14 has 45 MA's), (44, 95), (56, 149), (57, 152), (78, 263),

Gene: Beenie_2 Start: 486, Stop: 848, Start Num: 16
Candidate Starts for Beenie_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (42, 591), (44, 597), (46, 603), (50, 621), (52, 633), (62, 684), (78, 765),

Gene: Begonia_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Begonia_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Bjanes7_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Bjanes7_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: BlingBling_1 Start: 56, Stop: 397, Start Num: 29

Candidate Starts for BlingBling_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Blino_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for Blino_1:
(13, 15), (20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: Blueberry_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for Blueberry_1:
(13, 15), (20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: Bowser_1 Start: 176, Stop: 550, Start Num: 25
Candidate Starts for Bowser_1:
(Start: 25 @176 has 8 MA's), (42, 260), (52, 302), (56, 320), (61, 347), (63, 356), (68, 383), (72, 401), (94, 515),

Gene: Bunker_1 Start: 176, Stop: 550, Start Num: 25
Candidate Starts for Bunker_1:
(Start: 25 @176 has 8 MA's), (52, 302), (56, 320), (58, 335), (61, 347), (63, 356), (68, 383), (72, 401), (94, 515),

Gene: CaptainKirk2_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for CaptainKirk2_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: CarolAnn_1 Start: 56, Stop: 391, Start Num: 29
Candidate Starts for CarolAnn_1:
(12, 14), (20, 35), (Start: 29 @56 has 43 MA's), (30, 62), (32, 74), (Start: 34 @89 has 1 MA's), (41, 122), (42, 128), (45, 137), (48, 149), (51, 161), (58, 203), (62, 221), (63, 224), (68, 251), (72, 269), (79, 302), (82, 308),

Gene: CheeseSpider_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for CheeseSpider_1:
(20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: Chipko_1 Start: 226, Stop: 612, Start Num: 24
Candidate Starts for Chipko_1:
(Start: 24 @226 has 6 MA's), (Start: 28 @238 has 45 MA's), (31, 256), (42, 313), (49, 337), (68, 436), (80, 490),

Gene: Clap_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Clap_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Clark_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Clark_2:

(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (42, 591), (44, 597), (46, 603), (50, 621), (52, 633), (62, 684), (78, 765),

Gene: Coriander_1 Start: 228, Stop: 614, Start Num: 24
Candidate Starts for Coriander_1:
(Start: 24 @228 has 6 MA's), (Start: 28 @240 has 45 MA's), (42, 315), (49, 339), (80, 492),

Gene: Cynthia_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Cynthia_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Daegal_1 Start: 257, Stop: 571, Start Num: 36
Candidate Starts for Daegal_1:
(1, 14), (4, 71), (5, 92), (Start: 36 @257 has 2 MA's), (43, 287), (45, 293), (46, 296), (50, 314), (56, 344), (57, 347), (69, 392), (74, 416), (76, 425), (87, 470), (90, 485), (93, 536), (95, 563),

Gene: Delian_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Delian_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Denise_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Denise_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (57, 152), (73, 236), (77, 260), (78, 263), (86, 293),

Gene: DirtyBoi_1 Start: 228, Stop: 614, Start Num: 24
Candidate Starts for DirtyBoi_1:
(6, 141), (Start: 24 @228 has 6 MA's), (Start: 28 @240 has 45 MA's), (42, 315), (49, 339), (61, 402), (68, 438), (80, 492),

Gene: Dmitri_1 Start: 228, Stop: 614, Start Num: 24
Candidate Starts for Dmitri_1:
(Start: 24 @228 has 6 MA's), (Start: 28 @240 has 45 MA's), (31, 258), (42, 315), (49, 339), (68, 438), (80, 492),

Gene: DobbysSock_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for DobbysSock_1:
(Start: 28 @14 has 45 MA's), (37, 62), (Start: 39 @71 has 1 MA's), (44, 95), (46, 101), (52, 131), (56, 149), (78, 263),

Gene: Doggs_1 Start: 228, Stop: 614, Start Num: 24
Candidate Starts for Doggs_1:
(Start: 24 @228 has 6 MA's), (Start: 28 @240 has 45 MA's), (42, 315), (49, 339), (80, 492),

Gene: Dolores_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Dolores_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (44, 597), (45, 600), (46, 603), (78, 765),

Gene: Dorito_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Dorito_1:
(Start: 28 @14 has 45 MA's), (Start: 39 @71 has 1 MA's), (44, 95), (46, 101), (78, 263),

Gene: DumpsterDude_1 Start: 127, Stop: 453, Start Num: 27
Candidate Starts for DumpsterDude_1:
(9, 82), (Start: 27 @127 has 4 MA's), (Start: 34 @166 has 1 MA's), (44, 211), (47, 220), (51, 238), (54, 256), (63, 295), (72, 340), (82, 379), (89, 412),

Gene: Easley_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Easley_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (42, 591), (44, 597), (46, 603), (50, 621), (52, 633), (62, 684), (78, 765),

Gene: Ebert_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Ebert_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: EdnaMode_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for EdnaMode_1:
(Start: 28 @14 has 45 MA's), (43, 92), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Eyes_1 Start: 176, Stop: 550, Start Num: 25
Candidate Starts for Eyes_1:
(Start: 25 @176 has 8 MA's), (42, 260), (52, 302), (56, 320), (61, 347), (63, 356), (68, 383), (72, 401), (94, 515),

Gene: Fairfaxidum_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Fairfaxidum_1:
(Start: 29 @56 has 43 MA's), (30, 62), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (54, 179), (55, 185), (58, 203), (63, 224), (66, 242), (78, 299),

Gene: Fenry_1 Start: 57, Stop: 398, Start Num: 29
Candidate Starts for Fenry_1:
(Start: 29 @57 has 43 MA's), (32, 75), (Start: 34 @90 has 1 MA's), (Start: 35 @93 has 1 MA's), (42, 129), (44, 135), (45, 138), (51, 162), (58, 204), (63, 225), (68, 252), (72, 270),

Gene: FroggyToad_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for FroggyToad_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Frokostdame_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for Frokostdame_1:
(20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (72, 270), (79, 303), (82, 309),

Gene: GEazy_1 Start: 176, Stop: 550, Start Num: 25
Candidate Starts for GEazy_1:
(Start: 25 @176 has 8 MA's), (42, 260), (52, 302), (56, 320), (61, 347), (63, 356), (68, 383), (72, 401), (94, 515),

Gene: Gallop_1 Start: 64, Stop: 435, Start Num: 15
Candidate Starts for Gallop_1:
(15, 64), (37, 142), (46, 181), (67, 295), (68, 298), (71, 313), (85, 367),

Gene: Gambino_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for Gambino_1:

(13, 15), (20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: GemG_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for GemG_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Gizermo_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Gizermo_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Guacamole_1 Start: 57, Stop: 398, Start Num: 29
Candidate Starts for Guacamole_1:
(12, 12), (Start: 29 @57 has 43 MA's), (32, 75), (Start: 34 @90 has 1 MA's), (Start: 35 @93 has 1 MA's), (44, 135), (45, 138), (51, 162), (52, 171), (63, 225), (68, 252),

Gene: Haley23_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Haley23_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: HannahD_1 Start: 176, Stop: 550, Start Num: 25
Candidate Starts for HannahD_1:
(Start: 25 @176 has 8 MA's), (42, 260), (52, 302), (56, 320), (61, 347), (63, 356), (68, 383), (72, 401), (94, 515),

Gene: Hedwig_1 Start: 228, Stop: 614, Start Num: 24
Candidate Starts for Hedwig_1:
(Start: 24 @228 has 6 MA's), (Start: 28 @240 has 45 MA's), (31, 258), (42, 315), (49, 339), (61, 402), (68, 438), (80, 492),

Gene: Hitter_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Hitter_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Hortense_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Hortense_1:
(Start: 28 @14 has 45 MA's), (Start: 34 @50 has 1 MA's), (37, 62), (43, 92), (44, 95), (57, 152), (68, 215), (78, 263),

Gene: Howe_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Howe_1:
(Start: 28 @14 has 45 MA's), (Start: 34 @50 has 1 MA's), (37, 62), (43, 92), (44, 95), (57, 152), (68, 215), (78, 263),

Gene: Invectra_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Invectra_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (44, 597), (46, 603), (56, 651), (78, 765),

Gene: JCole_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for JCole_1:

(Start: 28 @14 has 45 MA's), (38, 68), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Jalammah_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Jalammah_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Jalleen_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Jalleen_1:
(Start: 28 @14 has 45 MA's), (38, 68), (44, 95), (45, 98), (46, 101), (52, 131), (57, 152), (65, 197),

Gene: JasperJr_1 Start: 57, Stop: 398, Start Num: 29
Candidate Starts for JasperJr_1:
(12, 12), (Start: 29 @57 has 43 MA's), (32, 75), (Start: 34 @90 has 1 MA's), (Start: 35 @93 has 1 MA's), (44, 135), (45, 138), (51, 162), (52, 171), (63, 225), (68, 252),

Gene: Jecs_1 Start: 166, Stop: 516, Start Num: 28
Candidate Starts for Jecs_1:
(10, 121), (23, 154), (Start: 28 @166 has 45 MA's), (52, 283), (61, 328), (63, 337), (80, 418), (82, 421),

Gene: JuJu_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for JuJu_1:
(20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: KappaFarmDelta_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for KappaFarmDelta_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (50, 158), (51, 161), (57, 191), (63, 224), (68, 251), (70, 257),

Gene: Kiko_1 Start: 64, Stop: 435, Start Num: 28
Candidate Starts for Kiko_1:
(Start: 28 @64 has 45 MA's), (52, 181), (56, 199), (61, 226), (68, 259), (80, 313), (92, 379),

Gene: Lamberg_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Lamberg_1:
(Start: 28 @14 has 45 MA's), (43, 92), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: LordFarquaad_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for LordFarquaad_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Lysidious_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Lysidious_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: MagicMan_1 Start: 166, Stop: 516, Start Num: 28
Candidate Starts for MagicMan_1:
(10, 121), (23, 154), (Start: 28 @166 has 45 MA's), (37, 214), (42, 241), (61, 328), (63, 337), (68, 364), (72, 382), (80, 418), (82, 421), (94, 496),

Gene: MakCheese_1 Start: 127, Stop: 453, Start Num: 27

Candidate Starts for MakCheese_1:
(Start: 27 @127 has 4 MA's), (Start: 34 @166 has 1 MA's), (37, 178), (41, 199), (44, 211), (45, 214), (47, 220), (51, 238), (54, 256), (57, 268), (59, 283), (63, 295), (66, 313), (70, 328), (72, 340), (74, 349), (82, 379), (88, 409), (89, 412),

Gene: Malachai_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Malachai_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Malibo_1 Start: 127, Stop: 453, Start Num: 27
Candidate Starts for Malibo_1:
(14, 97), (Start: 27 @127 has 4 MA's), (Start: 34 @166 has 1 MA's), (37, 178), (41, 199), (51, 238), (54, 256),

Gene: Matteo_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Matteo_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Mbo4_1 Start: 117, Stop: 464, Start Num: 24
Candidate Starts for Mbo4_1:
(15, 99), (19, 111), (Start: 24 @117 has 6 MA's), (63, 300), (75, 369), (77, 378),

Gene: Melba_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Melba_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Mellie_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Mellie_1:
(18, 32), (Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: MichaelScott_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for MichaelScott_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (42, 591), (44, 597), (46, 603), (50, 621), (52, 633), (62, 684), (78, 765),

Gene: MintFen_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for MintFen_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: MissRona_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for MissRona_1:
(13, 15), (20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: Mocha12_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Mocha12_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Moonflower_1 Start: 227, Stop: 613, Start Num: 24
Candidate Starts for Moonflower_1:
(Start: 24 @227 has 6 MA's), (Start: 28 @239 has 45 MA's), (31, 257), (42, 314), (49, 338), (68, 437), (80, 491),

Gene: Murp_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Murp_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (51, 161), (57, 191), (63, 224), (68, 251), (70, 257),

Gene: NaLuna_1 Start: 176, Stop: 550, Start Num: 25
Candidate Starts for NaLuna_1:
(Start: 25 @176 has 8 MA's), (42, 260), (52, 302), (56, 320), (61, 347), (63, 356), (68, 383), (72, 401), (94, 515),

Gene: Nettuno_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Nettuno_1:
(Start: 28 @14 has 45 MA's), (43, 92), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Obliviate_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Obliviate_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Ohgeesy_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Ohgeesy_1:
(Start: 28 @14 has 45 MA's), (44, 95), (56, 149), (57, 152), (78, 263),

Gene: Opie_1 Start: 166, Stop: 516, Start Num: 28
Candidate Starts for Opie_1:
(Start: 28 @166 has 45 MA's), (37, 214), (42, 241), (61, 328), (63, 337), (68, 364), (80, 418), (82, 421), (94, 496),

Gene: Oregano_1 Start: 101, Stop: 376, Start Num: 39
Candidate Starts for Oregano_1:
(Start: 39 @101 has 1 MA's), (44, 125), (46, 131), (78, 293),

Gene: PCoral7_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for PCoral7_1:
(Start: 29 @56 has 43 MA's), (30, 62), (32, 74), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (55, 185), (58, 203), (63, 224), (66, 242), (78, 299),

Gene: PantheRoc_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for PantheRoc_1:
(Start: 28 @14 has 45 MA's), (44, 95), (56, 149), (57, 152), (78, 263),

Gene: PatriciaStar_1 Start: 226, Stop: 612, Start Num: 24
Candidate Starts for PatriciaStar_1:
(Start: 24 @226 has 6 MA's), (Start: 28 @238 has 45 MA's), (31, 256), (42, 313), (49, 337), (52, 355), (61, 400), (62, 406), (68, 436), (80, 490),

Gene: Petra_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for Petra_1:

(13, 15), (20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: Phayonce_1 Start: 139, Stop: 432, Start Num: 35
Candidate Starts for Phayonce_1:
(11, 55), (Start: 25 @91 has 8 MA's), (Start: 35 @139 has 1 MA's), (44, 181), (50, 205), (56, 235), (61, 262), (68, 295), (71, 310), (72, 313), (77, 340),

Gene: PhriskyACE_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for PhriskyACE_1:
(Start: 28 @14 has 45 MA's), (Start: 39 @71 has 1 MA's), (44, 95), (46, 101), (78, 263),

Gene: PhrostedPhlake_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for PhrostedPhlake_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (51, 161), (58, 203), (63, 224), (68, 251),

Gene: Pickett_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Pickett_1:
(Start: 28 @14 has 45 MA's), (43, 92), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Pipp_1 Start: 55, Stop: 396, Start Num: 29
Candidate Starts for Pipp_1:
(8, 1), (Start: 29 @55 has 43 MA's), (32, 73), (Start: 34 @88 has 1 MA's), (Start: 35 @91 has 1 MA's), (42, 127), (44, 133), (45, 136), (51, 160), (58, 202), (63, 223), (68, 250),

Gene: Powerball_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Powerball_1:
(Start: 28 @14 has 45 MA's), (Start: 39 @71 has 1 MA's), (44, 95), (46, 101), (78, 263),

Gene: PrincePatrick_1 Start: 57, Stop: 398, Start Num: 29
Candidate Starts for PrincePatrick_1:
(Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (Start: 35 @93 has 1 MA's), (44, 135), (45, 138), (54, 180), (55, 186), (58, 204), (63, 225), (66, 243), (78, 300),

Gene: RayTheFireFly_1 Start: 228, Stop: 614, Start Num: 24
Candidate Starts for RayTheFireFly_1:
(Start: 24 @228 has 6 MA's), (Start: 28 @240 has 45 MA's), (42, 315), (49, 339), (68, 438), (80, 492),

Gene: Rem711_1 Start: 226, Stop: 540, Start Num: 36
Candidate Starts for Rem711_1:
(3, 37), (Start: 36 @226 has 2 MA's), (40, 241), (53, 301), (56, 313), (64, 346), (68, 373), (84, 436), (86, 451),

Gene: Rizz_3 Start: 603, Stop: 848, Start Num: 46
Candidate Starts for Rizz_3:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (42, 591), (44, 597), (46, 603), (50, 621), (52, 633), (56, 651), (62, 684), (78, 765),

Gene: Sahara_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Sahara_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152), (62, 182), (65, 197), (68, 215),

Gene: Samba_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Samba_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Samman98_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Samman98_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (44, 597), (45, 600), (46, 603), (78, 765),

Gene: Savage_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Savage_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Schnabeltier_1 Start: 167, Stop: 517, Start Num: 28
Candidate Starts for Schnabeltier_1:
(10, 122), (23, 155), (Start: 28 @167 has 45 MA's), (37, 215), (42, 242), (61, 329), (63, 338), (68, 365), (72, 383), (80, 419), (82, 422), (94, 497),

Gene: Sekhmet_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Sekhmet_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (44, 597), (46, 603), (56, 651), (78, 765),

Gene: Shlim410_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Shlim410_1:
(Start: 28 @14 has 45 MA's), (Start: 34 @50 has 1 MA's), (37, 62), (43, 92), (44, 95), (57, 152), (68, 215), (78, 263),

Gene: Sidious_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Sidious_1:
(Start: 28 @14 has 45 MA's), (44, 95), (57, 152), (61, 176), (65, 197), (78, 263),

Gene: SoilAssassin_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for SoilAssassin_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Soilmate_1 Start: 56, Stop: 391, Start Num: 29
Candidate Starts for Soilmate_1:
(12, 14), (20, 35), (Start: 29 @56 has 43 MA's), (30, 62), (32, 74), (Start: 34 @89 has 1 MA's), (41, 122), (42, 128), (45, 137), (48, 149), (51, 161), (58, 203), (62, 221), (63, 224), (68, 251), (72, 269), (79, 302), (82, 308),

Gene: Spartan_1 Start: 64, Stop: 435, Start Num: 15
Candidate Starts for Spartan_1:
(15, 64), (37, 142), (42, 169), (56, 229), (67, 295), (68, 298), (71, 313), (85, 367),

Gene: Sprinklemunch_1 Start: 125, Stop: 451, Start Num: 27
Candidate Starts for Sprinklemunch_1:
(7, 74), (8, 77), (21, 113), (Start: 27 @125 has 4 MA's), (52, 245), (55, 260), (59, 281), (64, 299), (70, 326), (72, 338), (78, 368), (83, 380),

Gene: Sproutie_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Sproutie_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Suerte_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Suerte_1:
(Start: 28 @14 has 45 MA's), (Start: 39 @71 has 1 MA's), (44, 95), (46, 101), (78, 263),

Gene: TaronosaurasRx_1 Start: 167, Stop: 517, Start Num: 28
Candidate Starts for TaronosaurasRx_1:
(10, 122), (23, 155), (Start: 28 @167 has 45 MA's), (42, 242), (61, 329), (63, 338), (68, 365), (72, 383), (80, 419), (82, 422), (94, 497),

Gene: Thimann_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Thimann_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (44, 597), (46, 603), (52, 633), (78, 765),

Gene: Toast_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Toast_1:
(Start: 29 @56 has 43 MA's), (30, 62), (32, 74), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (55, 185), (58, 203), (63, 224), (66, 242), (78, 299),

Gene: TuertoX_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for TuertoX_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Tuti_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for Tuti_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (42, 591), (44, 597), (46, 603), (50, 621), (52, 633), (62, 684), (68, 717), (78, 765),

Gene: Twinkle_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Twinkle_1:
(Start: 28 @14 has 45 MA's), (Start: 34 @50 has 1 MA's), (37, 62), (43, 92), (44, 95), (57, 152), (68, 215), (78, 263),

Gene: UmaThurman_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for UmaThurman_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (58, 203), (63, 224), (68, 251),

Gene: Utz_1 Start: 89, Stop: 397, Start Num: 34
Candidate Starts for Utz_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (58, 203), (63, 224), (68, 251),

Gene: Vasanti_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Vasanti_1:
(Start: 28 @14 has 45 MA's), (43, 92), (44, 95), (45, 98), (57, 152), (68, 215), (78, 263),

Gene: Walrus_1 Start: 57, Stop: 392, Start Num: 29
Candidate Starts for Walrus_1:

(13, 15), (20, 36), (Start: 29 @57 has 43 MA's), (30, 63), (32, 75), (Start: 34 @90 has 1 MA's), (41, 123), (42, 129), (45, 138), (48, 150), (51, 162), (58, 204), (62, 222), (63, 225), (68, 252), (72, 270), (79, 303), (82, 309),

Gene: Weirdo19_1 Start: 209, Stop: 565, Start Num: 33
Candidate Starts for Weirdo19_1:
(2, 14), (4, 47), (33, 209), (50, 278), (57, 311), (60, 332), (61, 335), (81, 431), (90, 473), (91, 500),

Gene: Whack_1 Start: 53, Stop: 403, Start Num: 25
Candidate Starts for Whack_1:
(Start: 25 @53 has 8 MA's), (37, 107), (56, 194), (61, 221), (68, 263), (77, 308), (82, 320),

Gene: Whiteclaw_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Whiteclaw_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: William_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for William_1:
(Start: 29 @56 has 43 MA's), (30, 62), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (54, 179), (55, 185), (56, 188), (58, 203), (66, 242), (78, 299),

Gene: WinkNick_2 Start: 510, Stop: 848, Start Num: 26
Candidate Starts for WinkNick_2:
(Start: 16 @486 has 1 MA's), (17, 492), (22, 501), (Start: 26 @510 has 11 MA's), (Start: 39 @573 has 1 MA's), (44, 597), (45, 600), (46, 603), (78, 765),

Gene: Wisp_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Wisp_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Wocket_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Wocket_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (58, 203), (63, 224), (68, 251),

Gene: Yeet412_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Yeet412_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: Yeezy_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Yeezy_1:
(Start: 28 @14 has 45 MA's), (44, 95), (56, 149), (57, 152), (78, 263),

Gene: Yinzer_1 Start: 14, Stop: 346, Start Num: 28
Candidate Starts for Yinzer_1:
(Start: 28 @14 has 45 MA's), (44, 95), (45, 98), (46, 101), (57, 152),

Gene: ZAYM_1 Start: 166, Stop: 516, Start Num: 28
Candidate Starts for ZAYM_1:
(10, 121), (23, 154), (Start: 28 @166 has 45 MA's), (42, 241), (61, 328), (63, 337), (68, 364), (72, 382), (80, 418), (82, 421), (94, 496),

Gene: Zarbodnamra_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Zarbodnamra_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (42, 128), (44, 134), (45, 137), (51, 161), (58, 203), (63, 224), (68, 251),

Gene: ZiggyZoo_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for ZiggyZoo_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (44, 134), (45, 137), (51, 161), (63, 224), (68, 251),

Gene: Zilla_1 Start: 56, Stop: 397, Start Num: 29
Candidate Starts for Zilla_1:
(Start: 29 @56 has 43 MA's), (32, 74), (Start: 34 @89 has 1 MA's), (Start: 35 @92 has 1 MA's), (44, 134), (45, 137), (61, 215), (62, 221), (63, 224), (66, 242), (68, 251), (70, 257),

Gene: Zodiariah_1 Start: 125, Stop: 451, Start Num: 27
Candidate Starts for Zodiariah_1:
(Start: 27 @125 has 4 MA's), (Start: 34 @164 has 1 MA's), (37, 176), (41, 197), (44, 209), (45, 212), (47, 218), (51, 236), (54, 254), (57, 266), (59, 281), (63, 293), (66, 311), (72, 338), (82, 377), (88, 407), (89, 410),