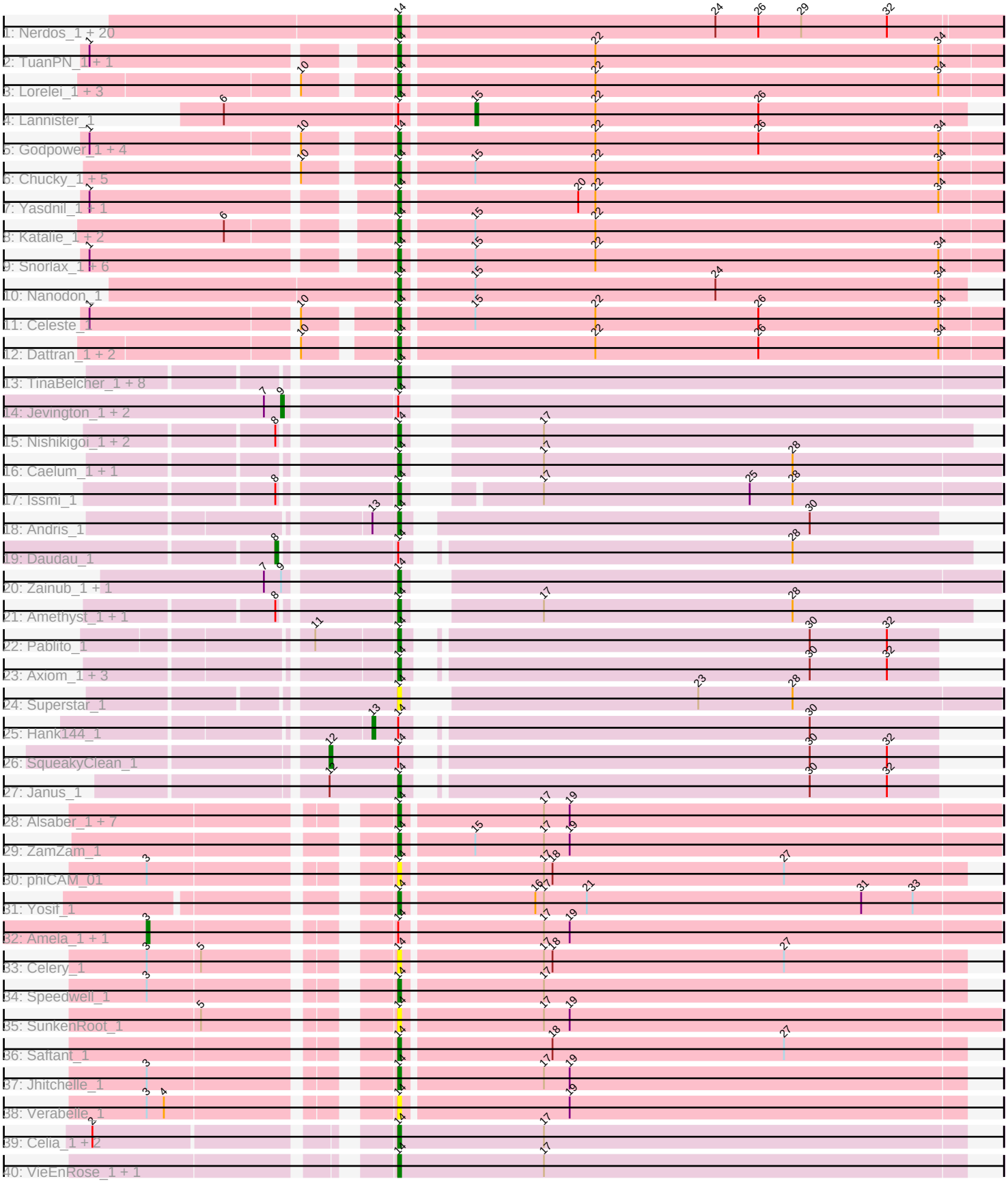
Pham 304858


1: Nerdos_1 + 20
2: TuanPN_1 + 1
3: Lorelei_1 + 3
4: Lannister_1
5: Godpower_1 + 4
6: Chucky_1 + 5
7: Yasdnil_1 + 1
8: Katalie_1 + 2
9: Snorlax_1 + 6
10: Nanodon_1
11: Celeste_1
12: Dattran_1 + 2
13: TinaBelcher_1 + 8
14: Jevington_1 + 2
15: Nishikigoi_1 + 2
16: Caelum_1 + 1
17: Issmi_1
18: Andris_1
19: Daudau_1
20: Zainub_1 + 1
21: Amethyst_1 + 1
22: Pablito_1
23: Axiom_1 + 3
24: Superstar_1
25: Hank144_1
26: SqueakyClean_1
27: Janus_1
28: Alsaber_1 + 7
29: ZamZam_1
30: phiCAM_01
31: Yosif_1
32: Amela_1 + 1
33: Celery_1
34: Speedwell_1
35: SunkenRoot_1
36: Saftant_1
37: Jhitchelle_1
38: Verabelle_1
39: Celia_1 + 2
40: VieEnRose_1 + 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 304858 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304858 has 113 members, 7 are drafts.

Phages represented in each track:
• Track 1 : Nerdos_1, SunsetPointe_1, Ozzie_1, Oliynyk_1, Leviticus_1, BeardedLady_1, Bovely_1, Jash_1, BryanRecycles_1, Phettuccine_1, Aaronocolus_1, Legacy_1, Unstoppable_1, EnochSoames_1, Izzy_1, Hydra_1, Indigo_1, Eddasa_1, Esperer_1, Caliburn_1, Rusticus_1
• Track 2 : TuanPN_1, Ejemplo_1
• Track 3 : Lorelei_1, Sujidade_1, Nabi_1, Rana_1
• Track 4 : Lannister_1
• Track 5 : Godpower_1, Zemlya_1, Brataylor_1, Danzina_1, Lika_1
• Track 6 : Chucky_1, OzzyJ_1, Triste_1, TagePhighter_1, Dwayne_1, Werner_1
• Track 7 : Yasdnil_1, Maneekul_1
• Track 8 : Katalie_1, South40_1, RedBear_1
• Track 9 : Snorlax_1, Asten_1, SarahRose_1, BarryBee_1, Hippo_1, Emaanora_1, Whatever_1
• Track 10 : Nanodon_1
• Track 11 : Celeste_1
• Track 12 : Dattran_1, Goby_1, Toma_1
• Track 13 : TinaBelcher_1, BartholomewSD_1, Loofah_1, Alvy_1, Bowden_1, Paedore_1, TrvxScott_1, Omar_1, Thestral_1
• Track 14 : Jevington_1, Paolo_1, Puginator_1
• Track 15 : Nishikigoi_1, Haizum_1, Tefunt_1
• Track 16 : Caelum_1, ELB20_01
• Track 17 : Issmi_1
• Track 18 : Andris_1
• Track 19 : Daudau_1
• Track 20 : Zainub_1, Marav_1
• Track 21 : Amethyst_1, Diane_1
• Track 22 : Pablito_1
• Track 23 : Axiom_1, Animus_1, Triumph_1, GirlDinner_1
• Track 24 : Superstar_1
• Track 25 : Hank144_1
• Track 26 : SqueakyClean_1
• Track 27 : Janus_1
• Track 28 : Alsaber_1, Dexers_1, Provolone_1, Kaine_1, ElGato_1, Conan_1, Pavo_1, Sudan_1
• Track 29 : ZamZam_1
• Track 30 : phiCAM_01
• Track 31 : Yosif_1

• Track 32 : Amela_1, Verse_1
• Track 33 : Celery_1
• Track 34 : Speedwell_1
• Track 35 : SunkenRoot_1
• Track 36 : Saftant_1
• Track 37 : Jhitchelle_1
• Track 38 : Verabelle_1
• Track 39 : Celia_1, Urza_1, Itza_1
• Track 40 : VieEnRose_1, Vanseggelen_1

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

The start number called the most often in the published annotations is 14, it was called in 97 of the 106 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aaronocolus_1, Alsaber_1, Alvy_1, Amethyst_1, Andris_1, Animus_1, Asten_1, Axiom_1, BarryBee_1, BartholomewSD_1, BeardedLady_1, Bovely_1, Bowden_1, Brataylor_1, BryanRecycles_1, Caelum_1, Caliburn_1, Celery_1, Celeste_1, Celia_1, Chucky_1, Conan_1, Danzina_1, Dattran_1, Dexers_1, Diane_1, Dwayne_1, ELB20_01, Eddasa_1, Ejemplo_1, ElGato_1, Emaanora_1, EnochSoames_1, Esperer_1, GirlDinner_1, Goby_1, Godpower_1, Haizum_1, Hippo_1, Hydra_1, Indigo_1, Issmi_1, Itza_1, Izzy_1, Janus_1, Jash_1, Jhitchelle_1, Kaine_1, Katalie_1, Legacy_1, Leviticus_1, Lika_1, Loofah_1, Lorelei_1, Maneekul_1, Marav_1, Nabi_1, Nanodon_1, Nerdos_1, Nishikigoi_1, Oliynyk_1, Omar_1, Ozzie_1, OzzyJ_1, Pablito_1, Paedore_1, Pavo_1, Phettuccine_1, Provolone_1, Rana_1, RedBear_1, Rusticus_1, Saftant_1, SarahRose_1, Snorlax_1, South40_1, Speedwell_1, Sudan_1, Sujidade_1, SunkenRoot_1, SunsetPointe_1, Superstar_1, TagePhighter_1, Tefunt_1, Thestral_1, TinaBelcher_1, Toma_1, Triste_1, Triumph_1, TrvxScott_1, TuanPN_1, Unstoppable_1, Urza_1, Vanseggelen_1, Verabelle_1, VieEnRose_1, Werner_1, Whatever_1, Yasdnil_1, Yosif_1, Zainub_1, ZamZam_1, Zemlya_1, phiCAM_01,

Genes that have the "Most Annotated" start but do not call it:
• Amela_1, Daudau_1, Hank144_1, Jevington_1, Lannister_1, Paolo_1, Puginator_1, SqueakyClean_1, Verse_1,

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

Summary by start number:

Start 3:
• Found in 7 of 113 (6.2%) of genes in pham
• Manual Annotations of this start: 2 of 106
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Amela_1 (BD3), Verse_1 (BD3),

Start 8:
• Found in 7 of 113 (6.2%) of genes in pham

• Manual Annotations of this start: 1 of 106
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Daudau_1 (BD2),

Start 9:
• Found in 5 of 113 (4.4%) of genes in pham
• Manual Annotations of this start: 3 of 106
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Jevington_1 (BD2), Paolo_1 (BD2), Puginator_1 (BD2),

Start 12:
• Found in 2 of 113 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 106
• Called 50.0% of time when present
• Phage (with cluster) where this start called: SqueakyClean_1 (BD2),

Start 13:
• Found in 2 of 113 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 106
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Hank144_1 (BD2),

Start 14:
• Found in 113 of 113 (100.0%) of genes in pham
• Manual Annotations of this start: 97 of 106
• Called 92.0% of time when present
• Phage (with cluster) where this start called: Aaronocolus_1 (BD1), Alsaber_1 (BD3), Alvy_1 (BD2), Amethyst_1 (BD2), Andris_1 (BD2), Animus_1 (BD2), Asten_1 (BD1), Axiom_1 (BD2), BarryBee_1 (BD1), BartholomewSD_1 (BD2), BeardedLady_1 (BD1), Bovely_1 (BD1), Bowden_1 (BD2), Brataylor_1 (BD1), BryanRecycles_1 (BD1), Caelum_1 (BD2), Caliburn_1 (BD1), Celery_1 (BD3), Celeste_1 (BD1), Celia_1 (BD6), Chucky_1 (BD1), Conan_1 (BD3), Danzina_1 (BD1), Dattran_1 (BD1), Dexers_1 (BD3), Diane_1 (BD2), Dwayne_1 (BD1), ELB20_01 (BD2), Eddasa_1 (BD1), Ejemplo_1 (BD1), ElGato_1 (BD3), Emaanora_1 (BD1), EnochSoames_1 (BD1), Esperer_1 (BD1), GirlDinner_1 (BD2), Goby_1 (BD1), Godpower_1 (BD1), Haizum_1 (BD2), Hippo_1 (BD1), Hydra_1 (BD1), Indigo_1 (BD1), Issmi_1 (BD2), Itza_1 (BD6), Izzy_1 (BD1), Janus_1 (BD2), Jash_1 (BD1), Jhitchelle_1 (BD3), Kaine_1 (BD3), Katalie_1 (BD1), Legacy_1 (BD1), Leviticus_1 (BD1), Lika_1 (BD1), Loofah_1 (BD2), Lorelei_1 (BD1), Maneekul_1 (BD1), Marav_1 (BD2), Nabi_1 (BD1), Nanodon_1 (BD1), Nerdos_1 (BD1), Nishikigoi_1 (BD2), Oliynyk_1 (BD1), Omar_1 (BD2), Ozzie_1 (BD1), OzzyJ_1 (BD1), Pablito_1 (BD2), Paedore_1 (BD2), Pavo_1 (BD3), Phettuccine_1 (BD1), Provolone_1 (BD3), Rana_1 (BD1), RedBear_1 (BD1), Rusticus_1 (BD1), Saftant_1 (BD3), SarahRose_1 (BD1), Snorlax_1 (BD1), South40_1 (BD1), Speedwell_1 (BD3), Sudan_1 (BD3), Sujidade_1 (BD1), SunkenRoot_1 (BD3), SunsetPointe_1 (BD1), Superstar_1 (BD2), TagePhighter_1 (BD1), Tefunt_1 (BD2), Thestral_1 (BD2), TinaBelcher_1 (BD2), Toma_1 (BD1), Triste_1 (BD1), Triumph_1 (BD2), TrvxScott_1 (BD2), TuanPN_1 (BD1), Unstoppable_1 (BD1), Urza_1 (BD6), Vanseggelen_1 (BD3), Verabelle_1 (BD3), VieEnRose_1 (BD6), Werner_1 (BD1), Whatever_1 (BD1), Yasdnil_1 (BD1), Yosif_1 (BD3), Zainub_1 (BD2), ZamZam_1 (BD3), Zemlya_1 (BD1), phiCAM_01 (BD3),

Start 15:

• Found in 20 of 113 (17.7%) of genes in pham
• Manual Annotations of this start: 1 of 106
• Called 5.0% of time when present
• Phage (with cluster) where this start called: Lannister_1 (BD1),

Summary by clusters:

There are 4 clusters represented in this pham: BD6, BD1, BD3, BD2,

Info for manual annotations of cluster BD1:
•Start number 14 was manually annotated 54 times for cluster BD1.
•Start number 15 was manually annotated 1 time for cluster BD1.

Info for manual annotations of cluster BD2:
•Start number 8 was manually annotated 1 time for cluster BD2.
•Start number 9 was manually annotated 3 times for cluster BD2.
•Start number 12 was manually annotated 1 time for cluster BD2.
•Start number 13 was manually annotated 1 time for cluster BD2.
•Start number 14 was manually annotated 26 times for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 3 was manually annotated 2 times for cluster BD3.
•Start number 14 was manually annotated 13 times for cluster BD3.

Info for manual annotations of cluster BD6:
•Start number 14 was manually annotated 4 times for cluster BD6.

Gene Information:

Gene: Aaronocolus_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Aaronocolus_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Alsaber_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Alsaber_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Alvy_1 Start: 311, Stop: 120, Start Num: 14
Candidate Starts for Alvy_1:
(Start: 14 @311 has 97 MA's),

Gene: Amela_1 Start: 369, Stop: 91, Start Num: 3
Candidate Starts for Amela_1:
(Start: 3 @369 has 2 MA's), (Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Amethyst_1 Start: 220, Stop: 35, Start Num: 14
Candidate Starts for Amethyst_1:
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 97 MA's), (17, 184), (28, 97),

Gene: Andris_1 Start: 244, Stop: 65, Start Num: 14
Candidate Starts for Andris_1:

(Start: 13 @253 has 1 MA's), (Start: 14 @244 has 97 MA's), (30, 109),

Gene: Animus_1 Start: 250, Stop: 74, Start Num: 14
Candidate Starts for Animus_1:
(Start: 14 @250 has 97 MA's), (30, 118), (32, 91),

Gene: Asten_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Asten_1:
(1, 392), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Axiom_1 Start: 249, Stop: 73, Start Num: 14
Candidate Starts for Axiom_1:
(Start: 14 @249 has 97 MA's), (30, 117), (32, 90),

Gene: BarryBee_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for BarryBee_1:
(1, 392), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: BartholomewSD_1 Start: 311, Stop: 120, Start Num: 14
Candidate Starts for BartholomewSD_1:
(Start: 14 @311 has 97 MA's),

Gene: BeardedLady_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for BeardedLady_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Bovely_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Bovely_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Bowden_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Bowden_1:
(Start: 14 @219 has 97 MA's),

Gene: Brataylor_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Brataylor_1:
(1, 393), (10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: BryanRecycles_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for BryanRecycles_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Caelum_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Caelum_1:
(Start: 14 @219 has 97 MA's), (17, 183), (28, 96),

Gene: Caliburn_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Caliburn_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Celery_1 Start: 297, Stop: 103, Start Num: 14
Candidate Starts for Celery_1:
(Start: 3 @369 has 2 MA's), (5, 351), (Start: 14 @297 has 97 MA's), (17, 249), (18, 246), (27, 165),

Gene: Celeste_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Celeste_1:
(1, 393), (10, 324), (Start: 14 @297 has 97 MA's), (Start: 15 @273 has 1 MA's), (22, 231), (26, 174), (34, 111),

Gene: Celia_1 Start: 300, Stop: 103, Start Num: 14
Candidate Starts for Celia_1:
(2, 390), (Start: 14 @300 has 97 MA's), (17, 249),

Gene: Chucky_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Chucky_1:
(10, 323), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Conan_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Conan_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Danzina_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Danzina_1:
(1, 393), (10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: Dattran_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Dattran_1:
(10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: Daudau_1 Start: 259, Stop: 35, Start Num: 8
Candidate Starts for Daudau_1:
(Start: 8 @259 has 1 MA's), (Start: 14 @223 has 97 MA's), (28, 97),

Gene: Dexers_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Dexers_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Diane_1 Start: 220, Stop: 35, Start Num: 14
Candidate Starts for Diane_1:
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 97 MA's), (17, 184), (28, 97),

Gene: Dwayne_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Dwayne_1:
(10, 323), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: ELB20_01 Start: 220, Stop: 35, Start Num: 14
Candidate Starts for ELB20_01:
(Start: 14 @220 has 97 MA's), (17, 184), (28, 97),

Gene: Eddasa_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Eddasa_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Ejemplo_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Ejemplo_1:
(1, 393), (Start: 14 @297 has 97 MA's), (22, 231), (34, 111),

Gene: ElGato_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for ElGato_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Emaanora_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Emaanora_1:
(1, 392), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: EnochSoames_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for EnochSoames_1:
(Start: 14 @296 has 97 MA's), (24, 188), (26, 173), (29, 158), (32, 128),

Gene: Esperer_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Esperer_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: GirlDinner_1 Start: 250, Stop: 74, Start Num: 14
Candidate Starts for GirlDinner_1:
(Start: 14 @250 has 97 MA's), (30, 118), (32, 91),

Gene: Goby_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Goby_1:
(10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: Godpower_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Godpower_1:
(1, 393), (10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: Haizum_1 Start: 220, Stop: 35, Start Num: 14
Candidate Starts for Haizum_1:
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 97 MA's), (17, 184),

Gene: Hank144_1 Start: 259, Stop: 74, Start Num: 13
Candidate Starts for Hank144_1:
(Start: 13 @259 has 1 MA's), (Start: 14 @250 has 97 MA's), (30, 118),

Gene: Hippo_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Hippo_1:
(1, 392), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Hydra_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Hydra_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Indigo_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Indigo_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Issmi_1 Start: 216, Stop: 25, Start Num: 14
Candidate Starts for Issmi_1:
(Start: 8 @252 has 1 MA's), (Start: 14 @216 has 97 MA's), (17, 183), (25, 111), (28, 96),

Gene: Itza_1 Start: 300, Stop: 103, Start Num: 14
Candidate Starts for Itza_1:
(2, 390), (Start: 14 @300 has 97 MA's), (17, 249),

Gene: Izzy_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Izzy_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Janus_1 Start: 250, Stop: 74, Start Num: 14
Candidate Starts for Janus_1:
(Start: 12 @274 has 1 MA's), (Start: 14 @250 has 97 MA's), (30, 118), (32, 91),

Gene: Jash_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Jash_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Jevington_1 Start: 255, Stop: 25, Start Num: 9
Candidate Starts for Jevington_1:
(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 97 MA's),

Gene: Jhitchelle_1 Start: 297, Stop: 103, Start Num: 14
Candidate Starts for Jhitchelle_1:
(Start: 3 @369 has 2 MA's), (Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Kaine_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Kaine_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Katalie_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Katalie_1:
(6, 344), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230),

Gene: Lannister_1 Start: 273, Stop: 103, Start Num: 15
Candidate Starts for Lannister_1:
(6, 357), (Start: 14 @297 has 97 MA's), (Start: 15 @273 has 1 MA's), (22, 231), (26, 174),

Gene: Legacy_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Legacy_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Leviticus_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Leviticus_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Lika_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Lika_1:
(1, 393), (10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: Loofah_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Loofah_1:
(Start: 14 @219 has 97 MA's),

Gene: Lorelei_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Lorelei_1:
(10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (34, 111),

Gene: Maneekul_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Maneekul_1:
(1, 393), (Start: 14 @297 has 97 MA's), (20, 237), (22, 231), (34, 111),

Gene: Marav_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Marav_1:
(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 97 MA's),

Gene: Nabi_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Nabi_1:
(10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (34, 111),

Gene: Nanodon_1 Start: 296, Stop: 102, Start Num: 14
Candidate Starts for Nanodon_1:
(Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (24, 188), (34, 110),

Gene: Nerdos_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Nerdos_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Nishikigoi_1 Start: 220, Stop: 35, Start Num: 14
Candidate Starts for Nishikigoi_1:
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 97 MA's), (17, 184),

Gene: Oliynyk_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Oliynyk_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Omar_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Omar_1:
(Start: 14 @219 has 97 MA's),

Gene: Ozzie_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Ozzie_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: OzzyJ_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for OzzyJ_1:
(10, 323), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Pablito_1 Start: 250, Stop: 74, Start Num: 14
Candidate Starts for Pablito_1:
(11, 277), (Start: 14 @250 has 97 MA's), (30, 118), (32, 91),

Gene: Paedore_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Paedore_1:
(Start: 14 @219 has 97 MA's),

Gene: Paolo_1 Start: 255, Stop: 25, Start Num: 9
Candidate Starts for Paolo_1:

(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 97 MA's),

Gene: Pavo_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Pavo_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Phettuccine_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Phettuccine_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Provolone_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Provolone_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Puginator_1 Start: 255, Stop: 25, Start Num: 9
Candidate Starts for Puginator_1:
(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 97 MA's),

Gene: Rana_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Rana_1:
(10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (34, 111),

Gene: RedBear_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for RedBear_1:
(6, 344), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230),

Gene: Rusticus_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Rusticus_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Saftant_1 Start: 297, Stop: 103, Start Num: 14
Candidate Starts for Saftant_1:
(Start: 14 @297 has 97 MA's), (18, 246), (27, 165),

Gene: SarahRose_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for SarahRose_1:
(1, 392), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Snorlax_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Snorlax_1:
(1, 392), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: South40_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for South40_1:
(6, 344), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230),

Gene: Speedwell_1 Start: 297, Stop: 103, Start Num: 14
Candidate Starts for Speedwell_1:
(Start: 3 @369 has 2 MA's), (Start: 14 @297 has 97 MA's), (17, 249),

Gene: SqueakyClean_1 Start: 274, Stop: 74, Start Num: 12
Candidate Starts for SqueakyClean_1:
(Start: 12 @274 has 1 MA's), (Start: 14 @250 has 97 MA's), (30, 118), (32, 91),

Gene: Sudan_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Sudan_1:
(Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: Sujidade_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Sujidade_1:
(10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (34, 111),

Gene: SunkenRoot_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for SunkenRoot_1:
(5, 351), (Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: SunsetPointe_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for SunsetPointe_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Superstar_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Superstar_1:
(Start: 14 @219 has 97 MA's), (23, 129), (28, 96),

Gene: TagePhighter_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for TagePhighter_1:
(10, 323), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Tefunt_1 Start: 220, Stop: 35, Start Num: 14
Candidate Starts for Tefunt_1:
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 97 MA's), (17, 184),

Gene: Thestral_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Thestral_1:
(Start: 14 @219 has 97 MA's),

Gene: TinaBelcher_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for TinaBelcher_1:
(Start: 14 @219 has 97 MA's),

Gene: Toma_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Toma_1:
(10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: Triste_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Triste_1:
(10, 323), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Triumph_1 Start: 249, Stop: 73, Start Num: 14
Candidate Starts for Triumph_1:
(Start: 14 @249 has 97 MA's), (30, 117), (32, 90),

Gene: TrvxScott_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for TrvxScott_1:
(Start: 14 @219 has 97 MA's),

Gene: TuanPN_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for TuanPN_1:
(1, 393), (Start: 14 @297 has 97 MA's), (22, 231), (34, 111),

Gene: Unstoppable_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Unstoppable_1:
(Start: 14 @297 has 97 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Urza_1 Start: 300, Stop: 103, Start Num: 14
Candidate Starts for Urza_1:
(2, 390), (Start: 14 @300 has 97 MA's), (17, 249),

Gene: Vanseggelen_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Vanseggelen_1:
(Start: 14 @297 has 97 MA's), (17, 249),

Gene: Verabelle_1 Start: 297, Stop: 103, Start Num: 14
Candidate Starts for Verabelle_1:
(Start: 3 @369 has 2 MA's), (4, 363), (Start: 14 @297 has 97 MA's), (19, 240),

Gene: Verse_1 Start: 369, Stop: 91, Start Num: 3
Candidate Starts for Verse_1:
(Start: 3 @369 has 2 MA's), (Start: 14 @297 has 97 MA's), (17, 249), (19, 240),

Gene: VieEnRose_1 Start: 300, Stop: 103, Start Num: 14
Candidate Starts for VieEnRose_1:
(Start: 14 @300 has 97 MA's), (17, 249),

Gene: Werner_1 Start: 296, Stop: 90, Start Num: 14
Candidate Starts for Werner_1:
(10, 323), (Start: 14 @296 has 97 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Whatever_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Whatever_1:
(1, 393), (Start: 14 @297 has 97 MA's), (Start: 15 @273 has 1 MA's), (22, 231), (34, 111),

Gene: Yasdnil_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Yasdnil_1:
(1, 393), (Start: 14 @297 has 97 MA's), (20, 237), (22, 231), (34, 111),

Gene: Yosif_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for Yosif_1:
(Start: 14 @297 has 97 MA's), (16, 252), (17, 249), (21, 234), (31, 138), (33, 120),

Gene: Zainub_1 Start: 219, Stop: 25, Start Num: 14
Candidate Starts for Zainub_1:
(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 97 MA's),

Gene: ZamZam_1 Start: 297, Stop: 91, Start Num: 14
Candidate Starts for ZamZam_1:
(Start: 14 @297 has 97 MA's), (Start: 15 @273 has 1 MA's), (17, 249), (19, 240),

Gene: Zemlya_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Zemlya_1:
(1, 393), (10, 324), (Start: 14 @297 has 97 MA's), (22, 231), (26, 174), (34, 111),

Gene: phiCAM_01 Start: 297, Stop: 103, Start Num: 14
Candidate Starts for phiCAM_01:
(Start: 3 @369 has 2 MA's), (Start: 14 @297 has 97 MA's), (17, 249), (18, 246), (27, 165),