

Pham 221318



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 221318 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221318 has 94 members, 14 are drafts.

Phages represented in each track:

- Track 1 : DinoDaryn_8, Huffy_8
- Track 2 : Vendetta_6, Splinter_6
- Track 3 : Goib_7
- Track 4 : TinaLin_9, Banquo_10
- Track 5 : TZGordon_8
- Track 6 : Gspu1_4
- Track 7 : Dardanus_8
- Track 8 : Schmidt_4
- Track 9 : Catfish_5
- Track 10 : Loviatar_5, SanaSana_3, Akino08_4, Stoor_2, Stromboli_2, BabyYoda_2, DirtyBubble_2, Elva_3
- Track 11 : Bachaco_2, Celaena_2, Katzastrophic_2
- Track 12 : FlameThrower_2
- Track 13 : Vitas_1, Clayda5_1, Bernstein_1, Brahms_1, Rollins_1, Coltrane_1, Armstrong_1, Skylord_1
- Track 14 : Teagster_1
- Track 15 : Kieran_2, Sharkboy_2, Dismas_2, Rona_2, ChiliPepper_2
- Track 16 : Doobus_2, Lynlen_2, Avocadoman_2, Burritobowl_2, Johnathan_2, Softsoap_2, Kenzers_2, Albedo_2, BubbaBear_2, Albright_2, Solea_2, Abigail_2, LimaBean_2, Arroyo_3, SansAfet_2, QMacho_3, Phisb_2, Bengal_2, Milomuff_2, Cashington_2, CroZenni_2, AnnaLie_2, Nicky22_3, BelmontSKP_2
- Track 17 : Jabb_2, Finalfrontier_3, CupcakePrincess_2, Swervy_2, TukTuk_2, MsUbiquitous_2, SarBear_2
- Track 18 : Icarian_3
- Track 19 : Olliecat_2, Squirrel_2
- Track 20 : Didgeridoo_3, IndyLu_2, BabyDaisy_3, Kate33_2
- Track 21 : Buldak_2
- Track 22 : WalkingDead_2
- Track 23 : Shayna_1, SunnyD_1
- Track 24 : Jovita_2
- Track 25 : Franklin22_1, Eden_1
- Track 26 : AvGardian_2
- Track 27 : PhigPhack_2
- Track 28 : BAjuniper_2
- Track 29 : Lahqtemish_2, PastaFagioli_2
- Track 30 : DickRichards_2, Slay_2
- Track 31 : Eula_2

- Track 32 : CliffHanger_3
- Track 33 : Quenya_3
- Track 34 : Gack_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 68 of the 80 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_2, Akino08_4, Albedo_2, Albright_2, AnnaLie_2, Armstrong_1, Arroyo_3, AvGardian_2, Avocadoman_2, BabyDaisy_3, BabyYoda_2, Bachaco_2, BelmontSKP_2, Bengal_2, Bernstein_1, Brahms_1, BubbaBear_2, Buldak_2, Burritobowl_2, Cashington_2, Celaena_2, ChiliPepper_2, Clayda5_1, CliffHanger_3, Coltrane_1, CroZenni_2, CupcakePrincess_2, DickRichards_2, Didgeridoo_3, DirtyBubble_2, Dismas_2, Doobus_2, Eden_1, Elva_3, Eula_2, Finalfrontier_3, FlameThrower_2, Franklin22_1, Gack_1, Icarian_3, IndyLu_2, Jabb_2, Johnathan_2, Jovita_2, Kate33_2, Katzastrophic_2, Kenzers_2, Kieran_2, Lahqtemish_2, LimaBean_2, Loviatar_5, Lynlen_2, Milomuff_2, MsUbiquitous_2, Nicky22_3, Olliecat_2, PastaFagioli_2, PhigPhack_2, Phisb_2, QMacho_3, Quenya_3, Rollins_1, Rona_2, SanaSana_3, SansAfet_2, SarBear_2, Sharkboy_2, Shayna_1, Skylord_1, Slay_2, Softsoap_2, Solea_2, Squircle_2, Stoor_2, Stromboli_2, SunnyD_1, Swervy_2, Teagster_1, TukTuk_2, Vitas_1, WalkingDead_2,

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

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

- BAjuniper_2, Banquo_10, Catfish_5, Dardanus_8, DinoDaryn_8, Goib_7, Gsput1_4, Huff_8, Schmidt_4, Splinter_6, TZGordon_8, TinaLin_9, Vendetta_6,

Summary by start number:

Start 20:

- Found in 8 of 94 (8.5%) of genes in pham
- Manual Annotations of this start: 8 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Banquo_10 (CU1), DinoDaryn_8 (CU1), Goib_7 (CU1), Huff_8 (CU1), Splinter_6 (CU1), TZGordon_8 (CU1), TinaLin_9 (CU1), Vendetta_6 (CU1),

Start 21:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Catfish_5 (CU5),

Start 23:

- Found in 11 of 94 (11.7%) of genes in pham
- Manual Annotations of this start: 2 of 80

- Called 27.3% of time when present
- Phage (with cluster) where this start called: Dardanus_8 (CU3), Gspu1_4 (CU2), Schmidt_4 (CU4),

Start 27:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BAjuniper_2 (EB),

Start 28:

- Found in 81 of 94 (86.2%) of genes in pham
- Manual Annotations of this start: 68 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail_2 (EB), Akino08_4 (EB), Albedo_2 (EB), Albright_2 (EB), AnnaLie_2 (EB), Armstrong_1 (EB), Arroyo_3 (EB), AvGardian_2 (EB), Avocadoman_2 (EB), BabyDaisy_3 (EB), BabyYoda_2 (EB), Bachaco_2 (EB), BelmontSKP_2 (EB), Bengal_2 (EB), Bernstein_1 (EB), Brahms_1 (EB), BubbaBear_2 (EB), Buldak_2 (EB), Burritobowl_2 (EB), Cashington_2 (EB), Celaena_2 (EB), ChiliPepper_2 (EB), Clayda5_1 (EB), CliffHanger_3 (EB), Coltrane_1 (EB), CroZenni_2 (EB), CupcakePrincess_2 (EB), DickRichards_2 (EB), Didgeridoo_3 (EB), DirtyBubble_2 (EB), Dismas_2 (EB), Doobus_2 (EB), Eden_1 (EB), Elva_3 (EB), Eula_2 (EB), Finalfrontier_3 (EB), FlameThrower_2 (EB), Franklin22_1 (EB), Gack_1 (EB), Icarian_3 (EB), IndyLu_2 (EB), Jabb_2 (EB), Johnathan_2 (EB), Jovita_2 (EB), Kate33_2 (EB), Katzastrophic_2 (EB), Kenzers_2 (EB), Kieran_2 (EB), Lahqtemish_2 (EB), LimaBean_2 (EB), Loviatar_5 (EB), Lynlen_2 (EB), Milomuff_2 (EB), MsUbiquitous_2 (EB), Nicky22_3 (EB), Olliecat_2 (EB), PastaFagioli_2 (EB), PhigPhack_2 (EB), Phisb_2 (EB), QMacho_3 (EB), Quenya_3 (EB), Rollins_1 (EB), Rona_2 (EB), SanaSana_3 (EB), SansAfet_2 (EB), SarBear_2 (EB), Sharkboy_2 (EB), Shayna_1 (EB), Skylord_1 (EB), Slay_2 (EB), Softsoap_2 (EB), Solea_2 (EB), Squircle_2 (EB), Stoor_2 (EB), Stromboli_2 (EB), SunnyD_1 (EB), Swervy_2 (EB), Teagster_1 (EB), TukTuk_2 (EB), Vitas_1 (EB), WalkingDead_2 (EB),

Summary by clusters:

There are 6 clusters represented in this pham: CU5, CU4, CU3, CU2, CU1, EB,

Info for manual annotations of cluster CU1:

- Start number 20 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 23 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 23 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 21 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster EB:

- Start number 27 was manually annotated 1 time for cluster EB.

- Start number 28 was manually annotated 68 times for cluster EB.

Gene Information:

Gene: Abigail_2 Start: 362, Stop: 685, Start Num: 28

Candidate Starts for Abigail_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Akino08_4 Start: 625, Stop: 948, Start Num: 28

Candidate Starts for Akino08_4:

(Start: 28 @625 has 68 MA's), (41, 862), (47, 910),

Gene: Albedo_2 Start: 350, Stop: 673, Start Num: 28

Candidate Starts for Albedo_2:

(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: Albright_2 Start: 362, Stop: 685, Start Num: 28

Candidate Starts for Albright_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: AnnaLie_2 Start: 362, Stop: 688, Start Num: 28

Candidate Starts for AnnaLie_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Armstrong_1 Start: 282, Stop: 590, Start Num: 28

Candidate Starts for Armstrong_1:

(Start: 28 @282 has 68 MA's), (32, 342), (36, 375),

Gene: Arroyo_3 Start: 832, Stop: 1155, Start Num: 28

Candidate Starts for Arroyo_3:

(10, 649), (Start: 28 @832 has 68 MA's), (41, 1069), (47, 1117),

Gene: AvGardian_2 Start: 426, Stop: 752, Start Num: 28

Candidate Starts for AvGardian_2:

(Start: 28 @426 has 68 MA's), (41, 663), (47, 711),

Gene: Avocadoman_2 Start: 420, Stop: 743, Start Num: 28

Candidate Starts for Avocadoman_2:

(10, 237), (Start: 28 @420 has 68 MA's), (41, 657), (47, 705),

Gene: BAjuniper_2 Start: 466, Stop: 777, Start Num: 27

Candidate Starts for BAjuniper_2:

(Start: 27 @466 has 1 MA's), (31, 523), (47, 739),

Gene: BabyDaisy_3 Start: 618, Stop: 941, Start Num: 28

Candidate Starts for BabyDaisy_3:

(Start: 28 @618 has 68 MA's), (41, 855), (47, 903),

Gene: BabyYoda_2 Start: 631, Stop: 954, Start Num: 28

Candidate Starts for BabyYoda_2:

(Start: 28 @631 has 68 MA's), (41, 868), (47, 916),

Gene: Bachaco_2 Start: 612, Stop: 935, Start Num: 28

Candidate Starts for Bachaco_2:

(10, 429), (Start: 28 @612 has 68 MA's), (41, 849),

Gene: Banquo_10 Start: 4208, Stop: 4573, Start Num: 20

Candidate Starts for Banquo_10:

(18, 4184), (Start: 20 @4208 has 8 MA's), (Start: 23 @4232 has 2 MA's), (26, 4253), (29, 4274), (45, 4514),

Gene: BelmontSKP_2 Start: 362, Stop: 688, Start Num: 28

Candidate Starts for BelmontSKP_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Bengal_2 Start: 362, Stop: 685, Start Num: 28

Candidate Starts for Bengal_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Bernstein_1 Start: 342, Stop: 650, Start Num: 28

Candidate Starts for Bernstein_1:

(Start: 28 @342 has 68 MA's), (32, 402), (36, 435),

Gene: Brahms_1 Start: 282, Stop: 590, Start Num: 28

Candidate Starts for Brahms_1:

(Start: 28 @282 has 68 MA's), (32, 342), (36, 375),

Gene: BubbaBear_2 Start: 350, Stop: 673, Start Num: 28

Candidate Starts for BubbaBear_2:

(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: Buldak_2 Start: 702, Stop: 1022, Start Num: 28

Candidate Starts for Buldak_2:

(Start: 28 @702 has 68 MA's), (40, 885), (42, 939), (46, 978),

Gene: Burritobowl_2 Start: 360, Stop: 683, Start Num: 28

Candidate Starts for Burritobowl_2:

(10, 177), (Start: 28 @360 has 68 MA's), (41, 597), (47, 645),

Gene: Cashington_2 Start: 350, Stop: 673, Start Num: 28

Candidate Starts for Cashington_2:

(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: Catfish_5 Start: 2214, Stop: 2552, Start Num: 21

Candidate Starts for Catfish_5:

(Start: 21 @2214 has 1 MA's), (29, 2268),

Gene: Celaena_2 Start: 549, Stop: 872, Start Num: 28

Candidate Starts for Celaena_2:

(10, 366), (Start: 28 @549 has 68 MA's), (41, 786),

Gene: ChiliPepper_2 Start: 615, Stop: 941, Start Num: 28

Candidate Starts for ChiliPepper_2:

(Start: 28 @615 has 68 MA's), (33, 699), (37, 741), (41, 852), (47, 900),

Gene: Clayda5_1 Start: 282, Stop: 590, Start Num: 28

Candidate Starts for Clayda5_1:

(Start: 28 @282 has 68 MA's), (32, 342), (36, 375),

Gene: CliffHanger_3 Start: 483, Stop: 791, Start Num: 28

Candidate Starts for CliffHanger_3:

(12, 339), (13, 351), (14, 369), (16, 390), (24, 462), (Start: 28 @483 has 68 MA's), (32, 546), (42, 720),

Gene: Coltrane_1 Start: 282, Stop: 590, Start Num: 28

Candidate Starts for Coltrane_1:

(Start: 28 @282 has 68 MA's), (32, 342), (36, 375),

Gene: CroZenni_2 Start: 362, Stop: 685, Start Num: 28

Candidate Starts for CroZenni_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: CupcakePrincess_2 Start: 349, Stop: 672, Start Num: 28

Candidate Starts for CupcakePrincess_2:

(19, 271), (Start: 28 @349 has 68 MA's), (41, 586), (47, 634),

Gene: Dardanus_8 Start: 3256, Stop: 3600, Start Num: 23

Candidate Starts for Dardanus_8:

(Start: 23 @3256 has 2 MA's), (25, 3265), (26, 3277), (29, 3298), (34, 3370), (35, 3373), (39, 3469),

Gene: DickRichards_2 Start: 833, Stop: 1156, Start Num: 28

Candidate Starts for DickRichards_2:

(8, 626), (Start: 28 @833 has 68 MA's), (38, 1001), (41, 1070), (47, 1118),

Gene: Didgeridoo_3 Start: 618, Stop: 941, Start Num: 28

Candidate Starts for Didgeridoo_3:

(Start: 28 @618 has 68 MA's), (41, 855), (47, 903),

Gene: DinoDaryn_8 Start: 3297, Stop: 3662, Start Num: 20

Candidate Starts for DinoDaryn_8:

(18, 3273), (Start: 20 @3297 has 8 MA's), (Start: 23 @3321 has 2 MA's), (26, 3342), (29, 3363), (45, 3603),

Gene: DirtyBubble_2 Start: 630, Stop: 953, Start Num: 28

Candidate Starts for DirtyBubble_2:

(Start: 28 @630 has 68 MA's), (41, 867), (47, 915),

Gene: Dismas_2 Start: 615, Stop: 941, Start Num: 28

Candidate Starts for Dismas_2:

(Start: 28 @615 has 68 MA's), (33, 699), (37, 741), (41, 852), (47, 900),

Gene: Doobus_2 Start: 584, Stop: 907, Start Num: 28

Candidate Starts for Doobus_2:

(10, 401), (Start: 28 @584 has 68 MA's), (41, 821), (47, 869),

Gene: Eden_1 Start: 342, Stop: 656, Start Num: 28

Candidate Starts for Eden_1:

(Start: 28 @342 has 68 MA's), (31, 402), (41, 570),

Gene: Elva_3 Start: 688, Stop: 1011, Start Num: 28

Candidate Starts for Elva_3:

(Start: 28 @688 has 68 MA's), (41, 925), (47, 973),

Gene: Eula_2 Start: 349, Stop: 672, Start Num: 28

Candidate Starts for Eula_2:

(10, 166), (19, 271), (Start: 28 @349 has 68 MA's), (41, 586), (47, 634),

Gene: Finalfrontier_3 Start: 855, Stop: 1178, Start Num: 28

Candidate Starts for Finalfrontier_3:

(19, 777), (Start: 28 @855 has 68 MA's), (41, 1092), (47, 1140),

Gene: FlameThrower_2 Start: 545, Stop: 868, Start Num: 28

Candidate Starts for FlameThrower_2:

(Start: 28 @545 has 68 MA's), (41, 782),

Gene: Franklin22_1 Start: 350, Stop: 664, Start Num: 28

Candidate Starts for Franklin22_1:

(Start: 28 @350 has 68 MA's), (31, 410), (41, 578),

Gene: Gack_1 Start: 383, Stop: 700, Start Num: 28

Candidate Starts for Gack_1:

(22, 341), (Start: 28 @383 has 68 MA's), (31, 443), (33, 458), (36, 476), (41, 611),

Gene: Goib_7 Start: 3067, Stop: 3432, Start Num: 20

Candidate Starts for Goib_7:

(Start: 20 @3067 has 8 MA's), (Start: 23 @3091 has 2 MA's), (26, 3112), (29, 3133), (34, 3205),

Gene: Gspu1_4 Start: 1649, Stop: 1978, Start Num: 23

Candidate Starts for Gspu1_4:

(17, 1589), (Start: 23 @1649 has 2 MA's), (29, 1691), (43, 1913), (45, 1925),

Gene: Huff_8 Start: 3297, Stop: 3662, Start Num: 20

Candidate Starts for Huff_8:

(18, 3273), (Start: 20 @3297 has 8 MA's), (Start: 23 @3321 has 2 MA's), (26, 3342), (29, 3363), (45, 3603),

Gene: Icarian_3 Start: 622, Stop: 945, Start Num: 28

Candidate Starts for Icarian_3:

(Start: 28 @622 has 68 MA's), (41, 859), (47, 907),

Gene: IndyLu_2 Start: 442, Stop: 765, Start Num: 28

Candidate Starts for IndyLu_2:

(Start: 28 @442 has 68 MA's), (41, 679), (47, 727),

Gene: Jabb_2 Start: 349, Stop: 672, Start Num: 28

Candidate Starts for Jabb_2:

(19, 271), (Start: 28 @349 has 68 MA's), (41, 586), (47, 634),

Gene: Johnathan_2 Start: 362, Stop: 685, Start Num: 28

Candidate Starts for Johnathan_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Jovita_2 Start: 475, Stop: 798, Start Num: 28
Candidate Starts for Jovita_2:
(8, 268), (Start: 28 @475 has 68 MA's), (41, 712), (47, 760),

Gene: Kate33_2 Start: 442, Stop: 765, Start Num: 28
Candidate Starts for Kate33_2:
(Start: 28 @442 has 68 MA's), (41, 679), (47, 727),

Gene: Katzastrophic_2 Start: 612, Stop: 935, Start Num: 28
Candidate Starts for Katzastrophic_2:
(10, 429), (Start: 28 @612 has 68 MA's), (41, 849),

Gene: Kenzers_2 Start: 350, Stop: 673, Start Num: 28
Candidate Starts for Kenzers_2:
(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: Kieran_2 Start: 615, Stop: 941, Start Num: 28
Candidate Starts for Kieran_2:
(Start: 28 @615 has 68 MA's), (33, 699), (37, 741), (41, 852), (47, 900),

Gene: Lahqtemish_2 Start: 442, Stop: 765, Start Num: 28
Candidate Starts for Lahqtemish_2:
(8, 235), (19, 364), (Start: 28 @442 has 68 MA's), (38, 610), (41, 679),

Gene: LimaBean_2 Start: 362, Stop: 685, Start Num: 28
Candidate Starts for LimaBean_2:
(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Loviatar_5 Start: 633, Stop: 956, Start Num: 28
Candidate Starts for Loviatar_5:
(Start: 28 @633 has 68 MA's), (41, 870), (47, 918),

Gene: Lynlen_2 Start: 350, Stop: 673, Start Num: 28
Candidate Starts for Lynlen_2:
(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: Milomuff_2 Start: 350, Stop: 673, Start Num: 28
Candidate Starts for Milomuff_2:
(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: MsUbiquitous_2 Start: 349, Stop: 672, Start Num: 28
Candidate Starts for MsUbiquitous_2:
(19, 271), (Start: 28 @349 has 68 MA's), (41, 586), (47, 634),

Gene: Nicky22_3 Start: 824, Stop: 1147, Start Num: 28
Candidate Starts for Nicky22_3:
(10, 641), (Start: 28 @824 has 68 MA's), (41, 1061), (47, 1109),

Gene: Olliecat_2 Start: 648, Stop: 953, Start Num: 28
Candidate Starts for Olliecat_2:
(1, 39), (2, 48), (3, 66), (4, 252), (5, 255), (6, 339), (11, 480), (15, 540), (Start: 28 @648 has 68 MA's),
(30, 681), (40, 831), (44, 891), (46, 924),

Gene: PastaFagioli_2 Start: 442, Stop: 765, Start Num: 28
Candidate Starts for PastaFagioli_2:
(8, 235), (19, 364), (Start: 28 @442 has 68 MA's), (38, 610), (41, 679),

Gene: PhigPhack_2 Start: 362, Stop: 685, Start Num: 28
Candidate Starts for PhigPhack_2:
(19, 284), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Phisb_2 Start: 350, Stop: 673, Start Num: 28
Candidate Starts for Phisb_2:
(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: QMacho_3 Start: 832, Stop: 1155, Start Num: 28
Candidate Starts for QMacho_3:
(10, 649), (Start: 28 @832 has 68 MA's), (41, 1069), (47, 1117),

Gene: Quenya_3 Start: 613, Stop: 927, Start Num: 28
Candidate Starts for Quenya_3:
(Start: 28 @613 has 68 MA's), (31, 673), (47, 889),

Gene: Rollins_1 Start: 342, Stop: 650, Start Num: 28
Candidate Starts for Rollins_1:
(Start: 28 @342 has 68 MA's), (32, 402), (36, 435),

Gene: Rona_2 Start: 615, Stop: 941, Start Num: 28
Candidate Starts for Rona_2:
(Start: 28 @615 has 68 MA's), (33, 699), (37, 741), (41, 852), (47, 900),

Gene: SanaSana_3 Start: 633, Stop: 956, Start Num: 28
Candidate Starts for SanaSana_3:
(Start: 28 @633 has 68 MA's), (41, 870), (47, 918),

Gene: SansAfet_2 Start: 350, Stop: 673, Start Num: 28
Candidate Starts for SansAfet_2:
(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: SarBear_2 Start: 349, Stop: 672, Start Num: 28
Candidate Starts for SarBear_2:
(19, 271), (Start: 28 @349 has 68 MA's), (41, 586), (47, 634),

Gene: Schmidt_4 Start: 1599, Stop: 1931, Start Num: 23
Candidate Starts for Schmidt_4:
(7, 1377), (9, 1428), (17, 1539), (Start: 23 @1599 has 2 MA's), (26, 1620), (29, 1641), (34, 1713), (39, 1812), (43, 1869), (45, 1881),

Gene: Sharkboy_2 Start: 614, Stop: 940, Start Num: 28
Candidate Starts for Sharkboy_2:
(Start: 28 @614 has 68 MA's), (33, 698), (37, 740), (41, 851), (47, 899),

Gene: Shayna_1 Start: 339, Stop: 644, Start Num: 28
Candidate Starts for Shayna_1:
(Start: 28 @339 has 68 MA's), (32, 402), (40, 522),

Gene: Skylord_1 Start: 282, Stop: 590, Start Num: 28

Candidate Starts for Skylord_1:

(Start: 28 @282 has 68 MA's), (32, 342), (36, 375),

Gene: Slay_2 Start: 832, Stop: 1155, Start Num: 28

Candidate Starts for Slay_2:

(8, 625), (Start: 28 @832 has 68 MA's), (38, 1000), (41, 1069), (47, 1117),

Gene: Softsoap_2 Start: 362, Stop: 685, Start Num: 28

Candidate Starts for Softsoap_2:

(10, 179), (Start: 28 @362 has 68 MA's), (41, 599), (47, 647),

Gene: Solea_2 Start: 350, Stop: 673, Start Num: 28

Candidate Starts for Solea_2:

(10, 167), (Start: 28 @350 has 68 MA's), (41, 587), (47, 635),

Gene: Splinter_6 Start: 3067, Stop: 3432, Start Num: 20

Candidate Starts for Splinter_6:

(18, 3043), (Start: 20 @3067 has 8 MA's), (Start: 23 @3091 has 2 MA's), (26, 3112), (29, 3133), (34, 3205),

Gene: Squircle_2 Start: 648, Stop: 953, Start Num: 28

Candidate Starts for Squircle_2:

(1, 39), (2, 48), (3, 66), (4, 252), (5, 255), (6, 339), (11, 480), (15, 540), (Start: 28 @648 has 68 MA's), (30, 681), (40, 831), (44, 891), (46, 924),

Gene: Stoor_2 Start: 630, Stop: 953, Start Num: 28

Candidate Starts for Stoor_2:

(Start: 28 @630 has 68 MA's), (41, 867), (47, 915),

Gene: Stromboli_2 Start: 630, Stop: 953, Start Num: 28

Candidate Starts for Stromboli_2:

(Start: 28 @630 has 68 MA's), (41, 867), (47, 915),

Gene: SunnyD_1 Start: 339, Stop: 644, Start Num: 28

Candidate Starts for SunnyD_1:

(Start: 28 @339 has 68 MA's), (32, 402), (40, 522),

Gene: Swervy_2 Start: 349, Stop: 672, Start Num: 28

Candidate Starts for Swervy_2:

(19, 271), (Start: 28 @349 has 68 MA's), (41, 586), (47, 634),

Gene: TZGordon_8 Start: 3212, Stop: 3577, Start Num: 20

Candidate Starts for TZGordon_8:

(18, 3188), (Start: 20 @3212 has 8 MA's), (Start: 23 @3236 has 2 MA's), (26, 3257), (29, 3278),

Gene: Teagster_1 Start: 342, Stop: 647, Start Num: 28

Candidate Starts for Teagster_1:

(Start: 28 @342 has 68 MA's), (32, 405), (40, 525),

Gene: TinaLin_9 Start: 3831, Stop: 4196, Start Num: 20

Candidate Starts for TinaLin_9:

(18, 3807), (Start: 20 @3831 has 8 MA's), (Start: 23 @3855 has 2 MA's), (26, 3876), (29, 3897), (45, 4137),

Gene: TukTuk_2 Start: 349, Stop: 672, Start Num: 28

Candidate Starts for TukTuk_2:

(19, 271), (Start: 28 @349 has 68 MA's), (41, 586), (47, 634),

Gene: Vendetta_6 Start: 3067, Stop: 3432, Start Num: 20

Candidate Starts for Vendetta_6:

(18, 3043), (Start: 20 @3067 has 8 MA's), (Start: 23 @3091 has 2 MA's), (26, 3112), (29, 3133), (34, 3205),

Gene: Vitas_1 Start: 282, Stop: 590, Start Num: 28

Candidate Starts for Vitas_1:

(Start: 28 @282 has 68 MA's), (32, 342), (36, 375),

Gene: WalkingDead_2 Start: 621, Stop: 944, Start Num: 28

Candidate Starts for WalkingDead_2:

(Start: 28 @621 has 68 MA's), (41, 858), (47, 906),