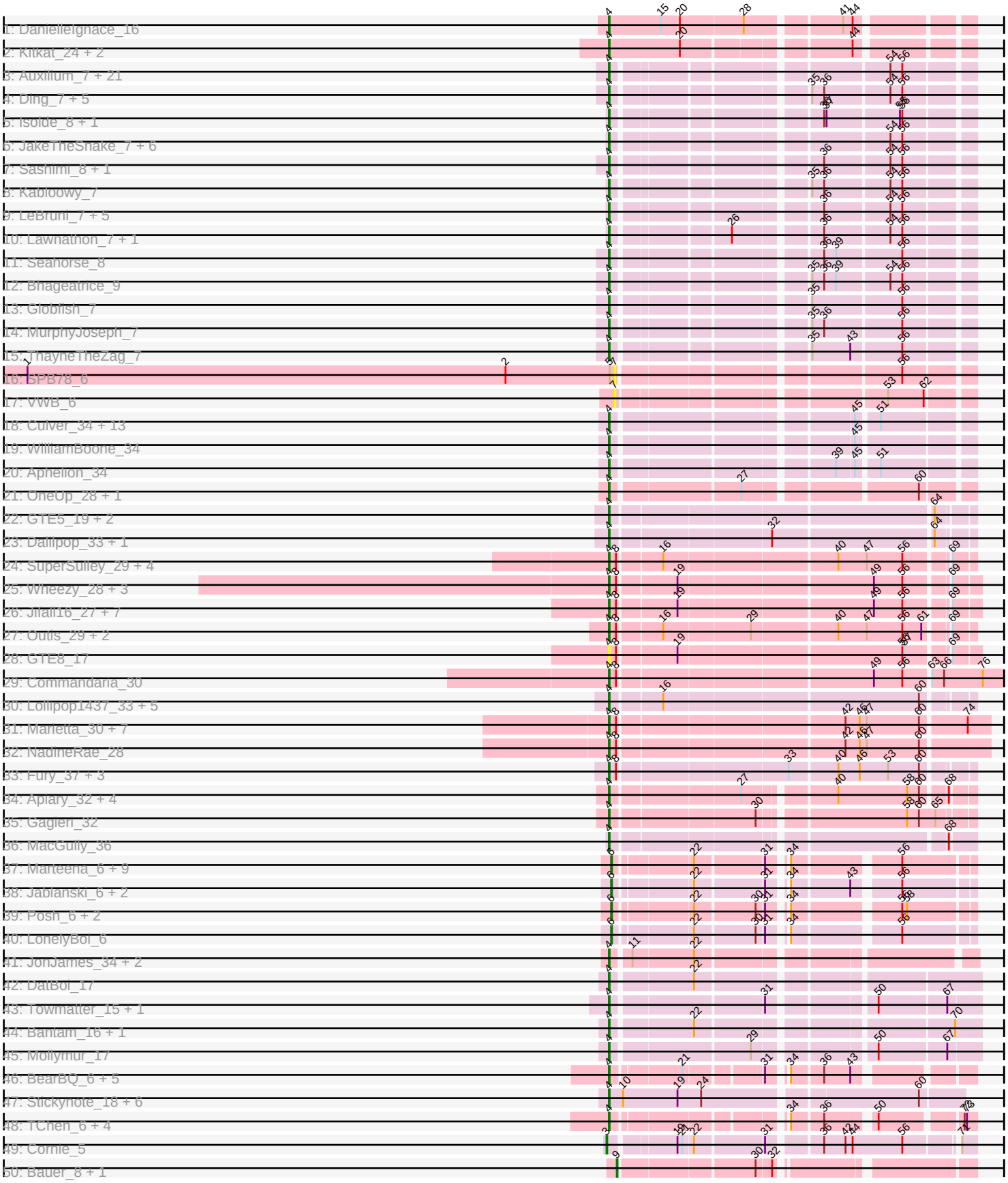
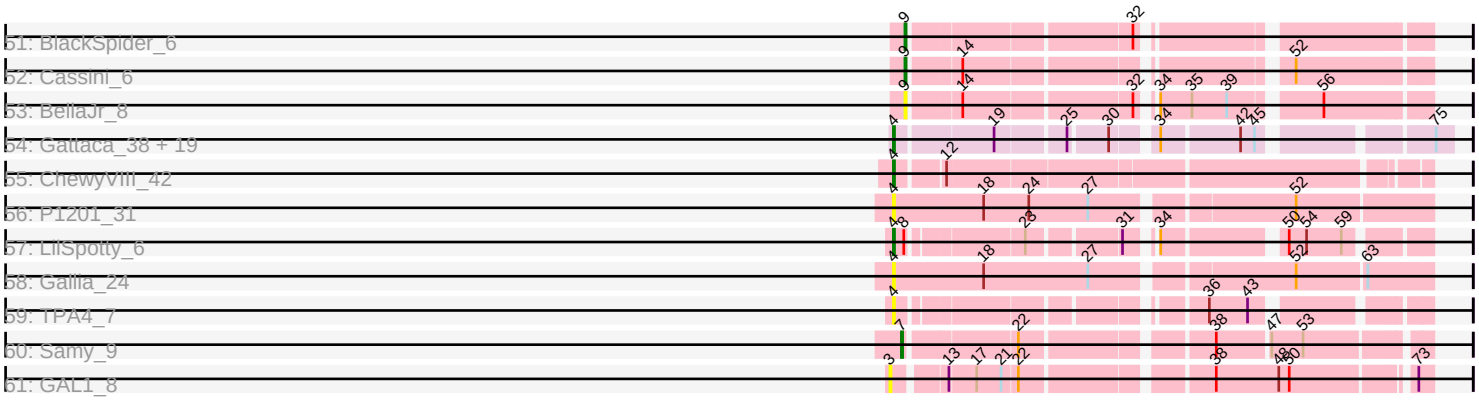
Pham 347264


1: DanielleIgnace_16
2: Kitkat_24 + 2
3: Auxilium_7 + 21
4: Ding_7 + 5
5: Isolde_8 + 1
6: JakeTheSnake_7 + 6
7: Sashimi_8 + 1
8: Kabloowy_7
9: LeBrunl_7 + 5
10: Lawnathon_7 + 1
11: Seahorse_8
12: Bhageatrice_9
13: Globfish_7
14: MurphyJoseph_7
15: ThayneTheZag_7
16: SPB78_6
17: VWB_6
18: Culver_34 + 13
19: WilliamBoone_34
20: Aphelion_34
21: OneOp_28 + 1
22: GTE5_19 + 2
23: Dallpop_33 + 1
24: SuperSulley_29 + 4
25: Wheezy_28 + 3
26: Jfall16_27 + 7
27: Outis_29 + 2
28: GTE8_17
29: Commandaria_30
30: Lollipop1437_33 + 5
31: Marietta_30 + 7
32: NadineRae_28
33: Fury_37 + 3
34: Apiary_32 + 4
35: Gaglen_32
36: MacGully_36
37: Marteena_6 + 9
38: Jablanski_6 + 2
39: Posh_6 + 2
40: LonelyBoi_6
41: JonJames_34 + 2
42: DatBoi_17
43: Towmatter_15 + 1
44: Bantam_16 + 1
45: Mollymur_17
46: BearBQ_6 + 5
47: Stickynote_18 + 6
48: TChen_6 + 4
49: Cornie_5
50: Bauer_8 + 1

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51: BlackSpider_6
52: Cassini_6
53: BellaJr_8
54: Gattaca_38 + 19
55: ChewyVIII_42
56: P1201_31
57: LilSpotty_6
58: Galila_24
59: TPA4_7
60: Samy_9
61: GAL1_8

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 347264 Report

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

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

Pham number 347264 has 207 members, 21 are drafts.

Phages represented in each track:
• Track 1 : DanielleIgnace_16
• Track 2 : Kitkat_24, BeatusComedenti_23, KellEzio_23
• Track 3 : Auxilium_7, BenchScraper_7, Faja_7, BasketStar_7, SpicyFrank_7, MaterMagnus_7, MUWow_6, Sporco_7, AdaS_7, BillyTP_7, SonDevVon_6, CosmicBrownie_6, YoungHarleezy_7, Gorpy_7, Richie_7, JellyBread_7, Raphaella_7, Sakai_7, Lasker_7, Aikyam_7, CookieBear_7, NewKitty_8
• Track 4 : Ding_7, Nyilah_6, Hestia_7, Satrap_7, Shukran_7, Tiff81_8
• Track 5 : Isolde_8, Windest_8
• Track 6 : JakeTheSnake_7, GumGum_7, DarwinJr_10, Crescenzo_7, Vopal_8, Persistence_6, Anekin_6
• Track 7 : Sashimi_8, EvePickles_7
• Track 8 : Kabloowy_7
• Track 9 : LeBruni_7, BlueShadow_7, MidnightRain_7, RadFad_7, Phrank15_6, Hillester_7
• Track 10 : Lawnathon_7, Mapleville_6
• Track 11 : Seahorse_8
• Track 12 : Bhageatrice_9
• Track 13 : Globfish_7
• Track 14 : MurphyJoseph_7
• Track 15 : ThayneTheZag_7
• Track 16 : SPB78_6
• Track 17 : VWB_6
• Track 18 : Culver_34, Miskis_32, Geeche_33, Dusty_33, Lozinak_34, Abscondus_33, Norvs_35, Smoothie_35, Cucurbita_36, Engineer_35, Bachita_36, Toniann_34, PhinkBoden_34, ClubL_34
• Track 19 : WilliamBoone_34
• Track 20 : Aphelion_34
• Track 21 : OneUp_28, BrutonGaster_22
• Track 22 : GTE5_19, Flapper_32, Turuncu_32
• Track 23 : Dalilpop_33, GRU1_18
• Track 24 : SuperSulley_29, Bonum_31, Kabluna_31, NosilaM_31, Buggaboo_29
• Track 25 : Wheezy_28, GrootJr_30, Arti_28, NovumRegina_28

• Track 26 : Jifall16_27, Foxboro_29, NatB6_28, Kurt_28, KidneyBean_28, Phomeo_27, Emianna_28, Tracker_28
• Track 27 : Outis_29, MerCougar_29, StarStruck_29
• Track 28 : GTE8_17
• Track 29 : Commandaria_30
• Track 30 : Lollipop1437_33, Patio_31, Ennea_34, RedRaider_35, Float294_30, Skysand_30
• Track 31 : Marietta_30, Sukkupi_30, Pemberton_31, BiPauneto_31, HubbaBubba_26, IDyn_29, Yndexa_30, WhoseManz_30
• Track 32 : NadineRae_28
• Track 33 : Fury_37, HomeFry_34, Scuba_37, Pleakley_37
• Track 34 : Apiary_32, Polyyuki_32, Maselop_32, CoffeeBean_32, Braxoaddie_32
• Track 35 : Gagieri_32
• Track 36 : MacGully_36
• Track 37 : Marteena_6, EnalisNailo_6, Cashline_6, Angelique_6, EMsquaredA_6, Wrigley_6, Lilas_6, Floral_6, BritBrat_6, Pollux_6
• Track 38 : Jablanski_6, Bradissa_6, Pytheas_6
• Track 39 : Posh_6, BeeGee_6, Confidence_6
• Track 40 : LonelyBoi_6
• Track 41 : JonJames_34, Cardigan_33, Yvonnetastic_32
• Track 42 : DatBoi_17
• Track 43 : Towmatter_15, Daredevil_16
• Track 44 : Bantam_16, SpeedDemon_170
• Track 45 : Mollymur_17
• Track 46 : BearBQ_6, MortyNRick_6, Kuwabara_6, Crater_6, Apricot_6, Birdsong_6
• Track 47 : Stickynote_18, Kimchi1738_16, Zion_16, Cruella_16, C3PO_16, PotatoChip_16, Darwin_19
• Track 48 : TChen_6, Toron_6, LunaStella_6, ThetaBob_6, Renaud18_6
• Track 49 : Cornie_5
• Track 50 : Bauer_8, Zucker_7
• Track 51 : BlackSpider_6
• Track 52 : Cassini_6
• Track 53 : BellaJr_8
• Track 54 : Gattaca_38, RedRaider77_39, Corazon_37, GoongGoong_38, Clarkson_40, Poise_39, Tesla_38, Raela_39, Lilbit_38, FeliMaine_41, Pringar_39, JoieB_40, LittleLaf_39, Beelzebub_43, Huphlepuff_41, Marvin_37, Caprice_38, VasuNzinga_39, MosMoris_37, Blackbeetle_39
• Track 55 : ChewyVIII_42
• Track 56 : P1201_31
• Track 57 : LilSpotty_6
• Track 58 : Gallia_24
• Track 59 : TPA4_7
• Track 60 : Samy_9
• Track 61 : GAL1_8

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

The start number called the most often in the published annotations is 4, it was called in 163 of the 186 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abscondus_33, AdaS_7, Aikyam_7, Anekin_6, Aphelion_34, Apiary_32, Apricot_6, Arti_28, Auxilium_7, Bachita_36, Bantam_16, BasketStar_7, BearBQ_6, BeatusComedenti_23, Beelzebub_43, BenchScraper_7, Bhageatrice_9, BiPauneto_31, BillyTP_7, Birdsong_6, Blackbeetle_39, BlueShadow_7, Bonum_31, Braxoaddie_32, BrutonGaster_22, Buggaboo_29, C3PO_16, Caprice_38, Cardigan_33, ChewyVIII_42, Clarkson_40, ClubL_34, CoffeeBean_32, Commandaria_30, CookieBear_7, Corazon_37, CosmicBrownie_6, Crater_6, Crescenzo_7, Cruella_16, Cucurbita_36, Culver_34, Dalilpop_33, DanielleIgnace_16, Daredevil_16, DarwinJr_10, Darwin_19, DatBoi_17, Ding_7, Dusty_33, Emianna_28, Engineer_35, Ennea_34, EvePickles_7, Faja_7, FeliMaine_41, Flapper_32, Float294_30, Foxboro_29, Fury_37, GRU1_18, GTE5_19, GTE8_17, Gagieri_32, Gallia_24, Gattaca_38, Geeche_33, Globfish_7, GoongGoong_38, Gorpy_7, GrootJr_30, GumGum_7, Hestia_7, Hillester_7, HomeFry_34, HubbaBubba_26, Huphlepuff_41, IDyn_29, Isolde_8, JakeTheSnake_7, JellyBread_7, Jifall16_27, JoieB_40, JonJames_34, Kabloowy_7, Kabluna_31, KellEzio_23, KidneyBean_28, Kimchi1738_16, Kitkat_24, Kurt_28, Kuwabara_6, Lasker_7, Lawnathon_7, LeBruni_7, LilSpotty_6, Lilbit_38, LittleLaf_39, Lollipop1437_33, Lozinak_34, LunaStella_6, MUWow_6, MacGully_36, Mapleville_6, Marietta_30, Marvin_37, Maselop_32, MaterMagnus_7, MerCougar_29, MidnightRain_7, Miskis_32, Mollymur_17, MortyNRick_6, MosMoris_37, MurphyJoseph_7, NadineRae_28, NatB6_28, NewKitty_8, Norvs_35, NosilaM_31, NovumRegina_28, Nyilah_6, OneUp_28, Outis_29, P1201_31, Patio_31, Pemberton_31, Persistence_6, PhinkBoden_34, Phomeo_27, Phrank15_6, Pleakley_37, Poise_39, Polyyuki_32, PotatoChip_16, Pringar_39, RadFad_7, Raela_39, Raphaella_7, RedRaider77_39, RedRaider_35, Renaud18_6, Richie_7, Sakai_7, Sashimi_8, Satrap_7, Scuba_37, Seahorse_8, Shukran_7, Skysand_30, Smoothie_35, SonDevVon_6, SpeedDemon_170, SpicyFrank_7, Sporco_7, StarStruck_29, Stickynote_18, Sukkupi_30, SuperSulley_29, TChen_6, TPA4_7, Tesla_38, ThayneTheZag_7, ThetaBob_6, Tiff81_8, Toniann_34, Toron_6, Towmatter_15, Tracker_28, Turuncu_32, VasuNzinga_39, Vopal_8, Wheezy_28, WhoseManz_30, WilliamBoone_34, Windest_8, Yndexa_30, YoungHarleezy_7, Yvonnetastic_32, Zion_16,

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

Genes that do not have the "Most Annotated" start:
• Angelique_6, Bauer_8, BeeGee_6, BellaJr_8, BlackSpider_6, Bradissa_6, BritBrat_6, Cashline_6, Cassini_6, Confidence_6, Cornie_5, EMsquaredA_6, EnalisNailo_6, Floral_6, GAL1_8, Jablanski_6, Lilas_6, LonelyBoi_6, Marteena_6, Pollux_6, Posh_6, Pytheas_6, SPB78_6, Samy_9, VWB_6, Wrigley_6, Zucker_7,

Summary by start number:

Start 3:
• Found in 2 of 207 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 186
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Cornie_5 (F5), GAL1_8 (singleton),

Start 4:
• Found in 180 of 207 (87.0%) of genes in pham

• Manual Annotations of this start: 163 of 186
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abscondus_33 (CQ1), AdaS_7 (AY), Aikyam_7 (AY), Anekin_6 (AY), Aphelion_34 (CQ1), Apiary_32 (CR6), Apricot_6 (DN3), Arti_28 (CR2), Auxilium_7 (AY), Bachita_36 (CQ1), Bantam_16 (DL), BasketStar_7 (AY), BearBQ_6 (DN), BeatusComedenti_23 (AT), Beelzebub_43 (S), BenchScraper_7 (AY), Bhageatrice_9 (AY), BiPauneto_31 (CR4), BillyTP_7 (AY), Birdsong_6 (DN), Blackbeetle_39 (S), BlueShadow_7 (AY), Bonum_31 (CR2), Braxoaddie_32 (CR6), BrutonGaster_22 (CQ2), Buggaboo_29 (CR2), C3PO_16 (EN), Caprice_38 (S), Cardigan_33 (DD), ChewyVIII_42 (singleton), Clarkson_40 (S), ClubL_34 (CQ1), CoffeeBean_32 (CR6), Commandaria_30 (CR2), CookieBear_7 (AY), Corazon_37 (S), CosmicBrownie_6 (AY), Crater_6 (DN3), Crescenzo_7 (AY), Cruella_16 (EN), Cucurbita_36 (CQ1), Culver_34 (CQ1), Dalilpop_33 (CR1), DanielleIgnace_16 (AT), Daredevil_16 (DL), DarwinJr_10 (AY), Darwin_19 (EN), DatBoi_17 (DL), Ding_7 (AY), Dusty_33 (CQ1), Emianna_28 (CR2), Engineer_35 (CQ1), Ennea_34 (CR3), EvePickles_7 (AY), Faja_7 (AY), FeliMaine_41 (S), Flapper_32 (CR1), Float294_30 (CR3), Foxboro_29 (CR2), Fury_37 (CR5), GRU1_18 (CR1), GTE5_19 (CR1), GTE8_17 (CR2), Gagieri_32 (CR6), Gallia_24 (singleton), Gattaca_38 (S), Geeche_33 (CQ1), Globfish_7 (AY), GoongGoong_38 (S), Gorpy_7 (AY), GrootJr_30 (CR2), GumGum_7 (AY), Hestia_7 (AY), Hillester_7 (AY), HomeFry_34 (CR5), HubbaBubba_26 (CR4), Huphlepuff_41 (S), IDyn_29 (CR4), Isolde_8 (AY), JakeTheSnake_7 (AY), JellyBread_7 (AY), Jifall16_27 (CR2), JoieB_40 (S), JonJames_34 (DD), Kabloowy_7 (AY), Kabluna_31 (CR2), KellEzio_23 (AT), KidneyBean_28 (CR2), Kimchi1738_16 (EN), Kitkat_24 (AT), Kurt_28 (CR2), Kuwabara_6 (DN4), Lasker_7 (AY), Lawnathon_7 (AY), LeBruni_7 (AY), LilSpotty_6 (singleton), Lilbit_38 (S), LittleLaf_39 (S), Lollipop1437_33 (CR3), Lozinak_34 (CQ1), LunaStella_6 (F4), MUWow_6 (AY), MacGully_36 (CR7), Mapleville_6 (AY), Marietta_30 (CR4), Marvin_37 (S), Maselop_32 (CR6), MaterMagnus_7 (AY), MerCougar_29 (CR2), MidnightRain_7 (AY), Miskis_32 (CQ1), Mollymur_17 (DL), MortyNRick_6 (DN), MosMoris_37 (S), MurphyJoseph_7 (AY), NadineRae_28 (CR4), NatB6_28 (CR2), NewKitty_8 (AY), Norvs_35 (CQ1), NosilaM_31 (CR2), NovumRegina_28 (CR2), Nyilah_6 (AY), OneUp_28 (CQ2), Outis_29 (CR2), P1201_31 (singleton), Patio_31 (CR3), Pemberton_31 (CR4), Persistence_6 (AY), PhinkBoden_34 (CQ1), Phomeo_27 (CR2), Phrank15_6 (AY), Pleakley_37 (CR5), Poise_39 (S), Polyyuki_32 (CR6), PotatoChip_16 (EN), Pringar_39 (S), RadFad_7 (AY), Raela_39 (S), Raphaella_7 (AY), RedRaider77_39 (S), RedRaider_35 (CR3), Renaud18_6 (F4), Richie_7 (AY), Sakai_7 (AY), Sashimi_8 (AY), Satrap_7 (AY), Scuba_37 (CR5), Seahorse_8 (AY), Shukran_7 (AY), Skysand_30 (CR3), Smoothie_35 (CQ1), SonDevVon_6 (AY), SpeedDemon_170 (DL), SpicyFrank_7 (AY), Sporco_7 (AY), StarStruck_29 (CR2), Stickynote_18 (EN), Sukkupi_30 (CR4), SuperSulley_29 (CR2), TChen_6 (F4), TPA4_7 (singleton), Tesla_38 (S), ThayneTheZag_7 (AY), ThetaBob_6 (F4), Tiff81_8 (AY), Toniann_34 (CQ1), Toron_6 (F6), Towmatter_15 (DL), Tracker_28 (CR2), Turuncu_32 (CR1), VasuNzinga_39 (S), Vopal_8 (AY), Wheezy_28 (CR2), WhoseManz_30 (CR4), WilliamBoone_34 (CQ1), Windest_8 (AY), Yndexa_30 (CR4), YoungHarleezy_7 (AY), Yvonnetastic_32 (DD), Zion_16 (EN),

Start 6:
• Found in 17 of 207 (8.2%) of genes in pham
• Manual Annotations of this start: 17 of 186
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Angelique_6 (CY1), BeeGee_6 (CY5), Bradissa_6 (CY1), BritBrat_6 (CY2), Cashline_6 (CY6), Confidence_6 (CY1),

EMsquaredA_6 (CY1), EnalisNailo_6 (CY1), Floral_6 (CY1), Jablanski_6 (CY3), Lilas_6 (CY1), LonelyBoi_6 (CY7), Marteena_6 (CY1), Pollux_6 (CY1), Posh_6 (CY4), Pytheas_6 (CY3), Wrigley_6 (CY4),

Start 7:
• Found in 3 of 207 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 186
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SPB78_6 (BA), Samy_9 (singleton), VWB_6 (BA),

Start 9:
• Found in 5 of 207 (2.4%) of genes in pham
• Manual Annotations of this start: 4 of 186
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bauer_8 (FN), BellaJr_8 (FN), BlackSpider_6 (FN), Cassini_6 (FN), Zucker_7 (FN),

Summary by clusters:

There are 31 clusters represented in this pham: DN, singleton, BA, DD, DL, CR7, FN, DN4, DN3, CQ2, CQ1, CY3, CY2, CY1, EN, CY7, CY6, CY5, CY4, S, AT, AY, CR6, F5, CR2, CR3, CR1, F4, F6, CR4, CR5,

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

Info for manual annotations of cluster AY:
•Start number 4 was manually annotated 44 times for cluster AY.

Info for manual annotations of cluster CQ1:
•Start number 4 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 4 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CR1:
•Start number 4 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 4 was manually annotated 21 times for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 4 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:
•Start number 4 was manually annotated 9 times for cluster CR4.

Info for manual annotations of cluster CR5:
•Start number 4 was manually annotated 4 times for cluster CR5.

Info for manual annotations of cluster CR6:

•Start number 4 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:
•Start number 4 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CY1:
•Start number 6 was manually annotated 9 times for cluster CY1.

Info for manual annotations of cluster CY2:
•Start number 6 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:
•Start number 6 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:
•Start number 6 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:
•Start number 6 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:
•Start number 6 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:
•Start number 6 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster DD:
•Start number 4 was manually annotated 3 times for cluster DD.

Info for manual annotations of cluster DL:
•Start number 4 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster DN:
•Start number 4 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN3:
•Start number 4 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:
•Start number 4 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster EN:
•Start number 4 was manually annotated 7 times for cluster EN.

Info for manual annotations of cluster F4:
•Start number 4 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:
•Start number 3 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster FN:
•Start number 9 was manually annotated 4 times for cluster FN.

Info for manual annotations of cluster S:
•Start number 4 was manually annotated 20 times for cluster S.

Gene Information:

Gene: Abscondus_33 Start: 13642, Stop: 14040, Start Num: 4
Candidate Starts for Abscondus_33:
(Start: 4 @13642 has 163 MA's), (45, 13912), (51, 13936),

Gene: AdaS_7 Start: 5490, Stop: 5885, Start Num: 4
Candidate Starts for AdaS_7:
(Start: 4 @5490 has 163 MA's), (54, 5793), (56, 5808),

Gene: Aikyam_7 Start: 5476, Stop: 5871, Start Num: 4
Candidate Starts for Aikyam_7:
(Start: 4 @5476 has 163 MA's), (54, 5779), (56, 5794),

Gene: Anekin_6 Start: 5629, Stop: 6024, Start Num: 4
Candidate Starts for Anekin_6:
(Start: 4 @5629 has 163 MA's), (54, 5932), (56, 5947),

Gene: Angelique_6 Start: 5300, Stop: 5683, Start Num: 6
Candidate Starts for Angelique_6:
(Start: 6 @5300 has 17 MA's), (22, 5387), (31, 5468), (34, 5483), (56, 5603),

Gene: Aphelion_34 Start: 13889, Stop: 14287, Start Num: 4
Candidate Starts for Aphelion_34:
(Start: 4 @13889 has 163 MA's), (39, 14138), (45, 14159), (51, 14183),

Gene: Apiary_32 Start: 19572, Stop: 19976, Start Num: 4
Candidate Starts for Apiary_32:
(Start: 4 @19572 has 163 MA's), (27, 19722), (40, 19821), (58, 19908), (60, 19923), (68, 19950),

Gene: Apricot_6 Start: 4848, Stop: 5222, Start Num: 4
Candidate Starts for Apricot_6:
(Start: 4 @4848 has 163 MA's), (21, 4926), (31, 5013), (34, 5028), (36, 5064), (43, 5097),

Gene: Arti_28 Start: 17591, Stop: 18016, Start Num: 4
Candidate Starts for Arti_28:
(Start: 4 @17591 has 163 MA's), (8, 17600), (19, 17666), (49, 17900), (56, 17936), (69, 17984),

Gene: Auxilium_7 Start: 5490, Stop: 5885, Start Num: 4
Candidate Starts for Auxilium_7:
(Start: 4 @5490 has 163 MA's), (54, 5793), (56, 5808),

Gene: Bachita_36 Start: 14322, Stop: 14720, Start Num: 4
Candidate Starts for Bachita_36:
(Start: 4 @14322 has 163 MA's), (45, 14592), (51, 14616),

Gene: Bantam_16 Start: 11161, Stop: 11574, Start Num: 4

Candidate Starts for Bantam_16:
(Start: 4 @11161 has 163 MA's), (22, 11257), (70, 11542),

Gene: BasketStar_7 Start: 5529, Stop: 5924, Start Num: 4
Candidate Starts for BasketStar_7:
(Start: 4 @5529 has 163 MA's), (54, 5832), (56, 5847),

Gene: Bauer_8 Start: 5911, Stop: 6297, Start Num: 9
Candidate Starts for Bauer_8:
(Start: 9 @5911 has 4 MA's), (30, 6067), (32, 6085),

Gene: BearBQ_6 Start: 4848, Stop: 5222, Start Num: 4
Candidate Starts for BearBQ_6:
(Start: 4 @4848 has 163 MA's), (21, 4926), (31, 5013), (34, 5028), (36, 5064), (43, 5097),

Gene: BeatusComedenti_23 Start: 12436, Stop: 12837, Start Num: 4
Candidate Starts for BeatusComedenti_23:
(Start: 4 @12436 has 163 MA's), (20, 12523), (44, 12712),

Gene: BeeGee_6 Start: 5303, Stop: 5686, Start Num: 6
Candidate Starts for BeeGee_6:
(Start: 6 @5303 has 17 MA's), (22, 5390), (30, 5462), (31, 5471), (34, 5486), (56, 5606), (58, 5612),

Gene: Beelzebub_43 Start: 16130, Stop: 16534, Start Num: 4
Candidate Starts for Beelzebub_43:
(Start: 4 @16130 has 163 MA's), (19, 16208), (25, 16262), (30, 16292), (34, 16322), (42, 16385), (45, 16397), (75, 16520),

Gene: BellaJr_8 Start: 5974, Stop: 6360, Start Num: 9
Candidate Starts for BellaJr_8:
(Start: 9 @5974 has 4 MA's), (14, 6013), (32, 6148), (34, 6154), (35, 6181), (39, 6211), (56, 6277),

Gene: BenchScraper_7 Start: 5490, Stop: 5885, Start Num: 4
Candidate Starts for BenchScraper_7:
(Start: 4 @5490 has 163 MA's), (54, 5793), (56, 5808),

Gene: Bhageatrice_9 Start: 6685, Stop: 7080, Start Num: 4
Candidate Starts for Bhageatrice_9:
(Start: 4 @6685 has 163 MA's), (35, 6895), (36, 6910), (39, 6925), (54, 6988), (56, 7003),

Gene: BiPauneto_31 Start: 17447, Stop: 17893, Start Num: 4
Candidate Starts for BiPauneto_31:
(Start: 4 @17447 has 163 MA's), (8, 17456), (42, 17720), (46, 17738), (47, 17747), (60, 17813), (74, 17867),

Gene: BillyTP_7 Start: 5484, Stop: 5879, Start Num: 4
Candidate Starts for BillyTP_7:
(Start: 4 @5484 has 163 MA's), (54, 5787), (56, 5802),

Gene: Birdsong_6 Start: 4848, Stop: 5222, Start Num: 4
Candidate Starts for Birdsong_6:
(Start: 4 @4848 has 163 MA's), (21, 4926), (31, 5013), (34, 5028), (36, 5064), (43, 5097),

Gene: BlackSpider_6 Start: 4970, Stop: 5356, Start Num: 9
Candidate Starts for BlackSpider_6:
(Start: 9 @4970 has 4 MA's), (32, 5144),

Gene: Blackbeetle_39 Start: 15149, Stop: 15553, Start Num: 4
Candidate Starts for Blackbeetle_39:
(Start: 4 @15149 has 163 MA's), (19, 15227), (25, 15281), (30, 15311), (34, 15341), (42, 15404), (45, 15416), (75, 15539),

Gene: BlueShadow_7 Start: 5476, Stop: 5871, Start Num: 4
Candidate Starts for BlueShadow_7:
(Start: 4 @5476 has 163 MA's), (36, 5701), (54, 5779), (56, 5794),

Gene: Bonum_31 Start: 17932, Stop: 18351, Start Num: 4
Candidate Starts for Bonum_31:
(Start: 4 @17932 has 163 MA's), (8, 17941), (16, 17989), (40, 18196), (47, 18232), (56, 18277), (69, 18325),

Gene: Bradissa_6 Start: 5307, Stop: 5690, Start Num: 6
Candidate Starts for Bradissa_6:
(Start: 6 @5307 has 17 MA's), (22, 5394), (31, 5475), (34, 5490), (43, 5559), (56, 5610),

Gene: Braxoaddie_32 Start: 19561, Stop: 19965, Start Num: 4
Candidate Starts for Braxoaddie_32:
(Start: 4 @19561 has 163 MA's), (27, 19711), (40, 19810), (58, 19897), (60, 19912), (68, 19939),

Gene: BritBrat_6 Start: 5309, Stop: 5692, Start Num: 6
Candidate Starts for BritBrat_6:
(Start: 6 @5309 has 17 MA's), (22, 5396), (31, 5477), (34, 5492), (56, 5612),

Gene: BrutonGaster_22 Start: 10580, Stop: 10981, Start Num: 4
Candidate Starts for BrutonGaster_22:
(Start: 4 @10580 has 163 MA's), (27, 10730), (60, 10925),

Gene: Buggaboo_29 Start: 18417, Stop: 18836, Start Num: 4
Candidate Starts for Buggaboo_29:
(Start: 4 @18417 has 163 MA's), (8, 18426), (16, 18474), (40, 18681), (47, 18717), (56, 18762), (69, 18810),

Gene: C3PO_16 Start: 12160, Stop: 12579, Start Num: 4
Candidate Starts for C3PO_16:
(Start: 4 @12160 has 163 MA's), (10, 12178), (19, 12247), (24, 12274), (60, 12526),

Gene: Caprice_38 Start: 15219, Stop: 15623, Start Num: 4
Candidate Starts for Caprice_38:
(Start: 4 @15219 has 163 MA's), (19, 15297), (25, 15351), (30, 15381), (34, 15411), (42, 15474), (45, 15486), (75, 15609),

Gene: Cardigan_33 Start: 15847, Stop: 16248, Start Num: 4
Candidate Starts for Cardigan_33:
(Start: 4 @15847 has 163 MA's), (11, 15868), (22, 15943),

Gene: Cashline_6 Start: 5156, Stop: 5539, Start Num: 6

Candidate Starts for Cashline_6:
(Start: 6 @5156 has 17 MA's), (22, 5243), (31, 5324), (34, 5339), (56, 5459),

Gene: Cassini_6 Start: 4944, Stop: 5330, Start Num: 9
Candidate Starts for Cassini_6:
(Start: 9 @4944 has 4 MA's), (14, 4983), (52, 5223),

Gene: ChewyVIII_42 Start: 25136, Stop: 25552, Start Num: 4
Candidate Starts for ChewyVIII_42:
(Start: 4 @25136 has 163 MA's), (12, 25172),

Gene: Clarkson_40 Start: 15831, Stop: 16235, Start Num: 4
Candidate Starts for Clarkson_40:
(Start: 4 @15831 has 163 MA's), (19, 15909), (25, 15963), (30, 15993), (34, 16023), (42, 16086), (45, 16098), (75, 16221),

Gene: ClubL_34 Start: 13823, Stop: 14221, Start Num: 4
Candidate Starts for ClubL_34:
(Start: 4 @13823 has 163 MA's), (45, 14093), (51, 14117),

Gene: CoffeeBean_32 Start: 19516, Stop: 19920, Start Num: 4
Candidate Starts for CoffeeBean_32:
(Start: 4 @19516 has 163 MA's), (27, 19666), (40, 19765), (58, 19852), (60, 19867), (68, 19894),

Gene: Commandaria_30 Start: 18882, Stop: 19346, Start Num: 4
Candidate Starts for Commandaria_30:
(Start: 4 @18882 has 163 MA's), (8, 18891), (49, 19191), (56, 19227), (63, 19257), (66, 19272), (76, 19320),

Gene: Confidence_6 Start: 5303, Stop: 5686, Start Num: 6
Candidate Starts for Confidence_6:
(Start: 6 @5303 has 17 MA's), (22, 5390), (30, 5462), (31, 5471), (34, 5486), (56, 5606), (58, 5612),

Gene: CookieBear_7 Start: 5490, Stop: 5885, Start Num: 4
Candidate Starts for CookieBear_7:
(Start: 4 @5490 has 163 MA's), (54, 5793), (56, 5808),

Gene: Corazon_37 Start: 15784, Stop: 16188, Start Num: 4
Candidate Starts for Corazon_37:
(Start: 4 @15784 has 163 MA's), (19, 15862), (25, 15916), (30, 15946), (34, 15976), (42, 16039), (45, 16051), (75, 16174),

Gene: Cornie_5 Start: 4459, Stop: 4863, Start Num: 3
Candidate Starts for Cornie_5:
(Start: 3 @4459 has 1 MA's), (19, 4534), (21, 4540), (22, 4552), (31, 4633), (36, 4690), (42, 4717), (44, 4726), (56, 4789), (71, 4846),

Gene: CosmicBrownie_6 Start: 5607, Stop: 6002, Start Num: 4
Candidate Starts for CosmicBrownie_6:
(Start: 4 @5607 has 163 MA's), (54, 5910), (56, 5925),

Gene: Crater_6 Start: 4848, Stop: 5222, Start Num: 4
Candidate Starts for Crater_6:

(Start: 4 @4848 has 163 MA's), (21, 4926), (31, 5013), (34, 5028), (36, 5064), (43, 5097),

Gene: Crescenzo_7 Start: 5557, Stop: 5952, Start Num: 4
Candidate Starts for Crescenzo_7:
(Start: 4 @5557 has 163 MA's), (54, 5860), (56, 5875),

Gene: Cruella_16 Start: 12160, Stop: 12579, Start Num: 4
Candidate Starts for Cruella_16:
(Start: 4 @12160 has 163 MA's), (10, 12178), (19, 12247), (24, 12274), (60, 12526),

Gene: Cucurbita_36 Start: 15181, Stop: 15579, Start Num: 4
Candidate Starts for Cucurbita_36:
(Start: 4 @15181 has 163 MA's), (45, 15451), (51, 15475),

Gene: Culver_34 Start: 13642, Stop: 14040, Start Num: 4
Candidate Starts for Culver_34:
(Start: 4 @13642 has 163 MA's), (45, 13912), (51, 13936),

Gene: Dalilpop_33 Start: 19952, Stop: 20371, Start Num: 4
Candidate Starts for Dalilpop_33:
(Start: 4 @19952 has 163 MA's), (32, 20138), (64, 20330),

Gene: DanielleIgnace_16 Start: 11672, Stop: 12079, Start Num: 4
Candidate Starts for DanielleIgnace_16:
(Start: 4 @11672 has 163 MA's), (15, 11735), (20, 11756), (28, 11834), (41, 11942), (44, 11954),

Gene: Daredevil_16 Start: 10047, Stop: 10457, Start Num: 4
Candidate Starts for Daredevil_16:
(Start: 4 @10047 has 163 MA's), (31, 10224), (50, 10338), (67, 10419),

Gene: Darwin_19 Start: 12905, Stop: 13324, Start Num: 4
Candidate Starts for Darwin_19:
(Start: 4 @12905 has 163 MA's), (10, 12923), (19, 12992), (24, 13019), (60, 13271),

Gene: DarwinJr_10 Start: 6860, Stop: 7255, Start Num: 4
Candidate Starts for DarwinJr_10:
(Start: 4 @6860 has 163 MA's), (54, 7163), (56, 7178),

Gene: DatBoi_17 Start: 11997, Stop: 12410, Start Num: 4
Candidate Starts for DatBoi_17:
(Start: 4 @11997 has 163 MA's), (22, 12093),

Gene: Ding_7 Start: 5501, Stop: 5896, Start Num: 4
Candidate Starts for Ding_7:
(Start: 4 @5501 has 163 MA's), (35, 5711), (36, 5726), (54, 5804), (56, 5819),

Gene: Dusty_33 Start: 13642, Stop: 14040, Start Num: 4
Candidate Starts for Dusty_33:
(Start: 4 @13642 has 163 MA's), (45, 13912), (51, 13936),

Gene: EMsquaredA_6 Start: 5309, Stop: 5692, Start Num: 6
Candidate Starts for EMsquaredA_6:
(Start: 6 @5309 has 17 MA's), (22, 5396), (31, 5477), (34, 5492), (56, 5612),

Gene: Emianna_28 Start: 18630, Stop: 19055, Start Num: 4
Candidate Starts for Emianna_28:
(Start: 4 @18630 has 163 MA's), (8, 18639), (19, 18705), (49, 18939), (56, 18975), (69, 19023),

Gene: EnalisNailo_6 Start: 5309, Stop: 5692, Start Num: 6
Candidate Starts for EnalisNailo_6:
(Start: 6 @5309 has 17 MA's), (22, 5396), (31, 5477), (34, 5492), (56, 5612),

Gene: Engineer_35 Start: 13837, Stop: 14235, Start Num: 4
Candidate Starts for Engineer_35:
(Start: 4 @13837 has 163 MA's), (45, 14107), (51, 14131),

Gene: Ennea_34 Start: 19252, Stop: 19671, Start Num: 4
Candidate Starts for Ennea_34:
(Start: 4 @19252 has 163 MA's), (16, 19309), (60, 19618),

Gene: EvePickles_7 Start: 5532, Stop: 5927, Start Num: 4
Candidate Starts for EvePickles_7:
(Start: 4 @5532 has 163 MA's), (36, 5757), (54, 5835), (56, 5850),

Gene: Faja_7 Start: 5476, Stop: 5871, Start Num: 4
Candidate Starts for Faja_7:
(Start: 4 @5476 has 163 MA's), (54, 5779), (56, 5794),

Gene: FeliMaine_41 Start: 15832, Stop: 16236, Start Num: 4
Candidate Starts for FeliMaine_41:
(Start: 4 @15832 has 163 MA's), (19, 15910), (25, 15964), (30, 15994), (34, 16024), (42, 16087), (45, 16099), (75, 16222),

Gene: Flapper_32 Start: 19033, Stop: 19452, Start Num: 4
Candidate Starts for Flapper_32:
(Start: 4 @19033 has 163 MA's), (64, 19411),

Gene: Float294_30 Start: 18694, Stop: 19113, Start Num: 4
Candidate Starts for Float294_30:
(Start: 4 @18694 has 163 MA's), (16, 18751), (60, 19060),

Gene: Floral_6 Start: 5309, Stop: 5692, Start Num: 6
Candidate Starts for Floral_6:
(Start: 6 @5309 has 17 MA's), (22, 5396), (31, 5477), (34, 5492), (56, 5612),

Gene: Foxboro_29 Start: 19136, Stop: 19561, Start Num: 4
Candidate Starts for Foxboro_29:
(Start: 4 @19136 has 163 MA's), (8, 19145), (19, 19211), (49, 19445), (56, 19481), (69, 19529),

Gene: Fury_37 Start: 18318, Stop: 18737, Start Num: 4
Candidate Starts for Fury_37:
(Start: 4 @18318 has 163 MA's), (8, 18327), (33, 18525), (40, 18582), (46, 18609), (53, 18645), (60, 18684),

Gene: GAL1_8 Start: 6396, Stop: 6800, Start Num: 3
Candidate Starts for GAL1_8:

(Start: 3 @6396 has 1 MA's), (13, 6435), (17, 6456), (21, 6477), (22, 6489), (38, 6633), (48, 6687), (50, 6696), (73, 6789),

Gene: GRU1_18 Start: 10918, Stop: 11337, Start Num: 4
Candidate Starts for GRU1_18:
(Start: 4 @10918 has 163 MA's), (32, 11104), (64, 11296),

Gene: GTE5_19 Start: 11921, Stop: 12340, Start Num: 4
Candidate Starts for GTE5_19:
(Start: 4 @11921 has 163 MA's), (64, 12299),

Gene: GTE8_17 Start: 11895, Stop: 12320, Start Num: 4
Candidate Starts for GTE8_17:
(Start: 4 @11895 has 163 MA's), (8, 11904), (19, 11970), (56, 12240), (57, 12243), (69, 12288),

Gene: Gagieri_32 Start: 19354, Stop: 19767, Start Num: 4
Candidate Starts for Gagieri_32:
(Start: 4 @19354 has 163 MA's), (30, 19522), (58, 19690), (60, 19705), (65, 19726),

Gene: Gallia_24 Start: 15906, Stop: 16340, Start Num: 4
Candidate Starts for Gallia_24:
(Start: 4 @15906 has 163 MA's), (18, 15981), (27, 16071), (52, 16227), (63, 16284),

Gene: Gattaca_38 Start: 15011, Stop: 15415, Start Num: 4
Candidate Starts for Gattaca_38:
(Start: 4 @15011 has 163 MA's), (19, 15089), (25, 15143), (30, 15173), (34, 15203), (42, 15266), (45, 15278), (75, 15401),

Gene: Geeche_33 Start: 13711, Stop: 14109, Start Num: 4
Candidate Starts for Geeche_33:
(Start: 4 @13711 has 163 MA's), (45, 13981), (51, 14005),

Gene: Globfish_7 Start: 5535, Stop: 5930, Start Num: 4
Candidate Starts for Globfish_7:
(Start: 4 @5535 has 163 MA's), (35, 5745), (56, 5853),

Gene: GoongGoong_38 Start: 15051, Stop: 15455, Start Num: 4
Candidate Starts for GoongGoong_38:
(Start: 4 @15051 has 163 MA's), (19, 15129), (25, 15183), (30, 15213), (34, 15243), (42, 15306), (45, 15318), (75, 15441),

Gene: Gorpy_7 Start: 5484, Stop: 5879, Start Num: 4
Candidate Starts for Gorpy_7:
(Start: 4 @5484 has 163 MA's), (54, 5787), (56, 5802),

Gene: GrootJr_30 Start: 17986, Stop: 18411, Start Num: 4
Candidate Starts for GrootJr_30:
(Start: 4 @17986 has 163 MA's), (8, 17995), (19, 18061), (49, 18295), (56, 18331), (69, 18379),

Gene: GumGum_7 Start: 5561, Stop: 5956, Start Num: 4
Candidate Starts for GumGum_7:
(Start: 4 @5561 has 163 MA's), (54, 5864), (56, 5879),

Gene: Hestia_7 Start: 5623, Stop: 6018, Start Num: 4
Candidate Starts for Hestia_7:
(Start: 4 @5623 has 163 MA's), (35, 5833), (36, 5848), (54, 5926), (56, 5941),

Gene: Hillester_7 Start: 5476, Stop: 5871, Start Num: 4
Candidate Starts for Hillester_7:
(Start: 4 @5476 has 163 MA's), (36, 5701), (54, 5779), (56, 5794),

Gene: HomeFry_34 Start: 16990, Stop: 17409, Start Num: 4
Candidate Starts for HomeFry_34:
(Start: 4 @16990 has 163 MA's), (8, 16999), (33, 17197), (40, 17254), (46, 17281), (53, 17317), (60, 17356),

Gene: HubbaBubba_26 Start: 14465, Stop: 14911, Start Num: 4
Candidate Starts for HubbaBubba_26:
(Start: 4 @14465 has 163 MA's), (8, 14474), (42, 14738), (46, 14756), (47, 14765), (60, 14831), (74, 14885),

Gene: Huphlepuff_41 Start: 15636, Stop: 16040, Start Num: 4
Candidate Starts for Huphlepuff_41:
(Start: 4 @15636 has 163 MA's), (19, 15714), (25, 15768), (30, 15798), (34, 15828), (42, 15891), (45, 15903), (75, 16026),

Gene: IDyn_29 Start: 15861, Stop: 16307, Start Num: 4
Candidate Starts for IDyn_29:
(Start: 4 @15861 has 163 MA's), (8, 15870), (42, 16134), (46, 16152), (47, 16161), (60, 16227), (74, 16281),

Gene: Isolde_8 Start: 5547, Stop: 5942, Start Num: 4
Candidate Starts for Isolde_8:
(Start: 4 @5547 has 163 MA's), (36, 5772), (37, 5775), (55, 5862), (56, 5865),

Gene: Jablanski_6 Start: 5156, Stop: 5539, Start Num: 6
Candidate Starts for Jablanski_6:
(Start: 6 @5156 has 17 MA's), (22, 5243), (31, 5324), (34, 5339), (43, 5408), (56, 5459),

Gene: JakeTheSnake_7 Start: 5516, Stop: 5911, Start Num: 4
Candidate Starts for JakeTheSnake_7:
(Start: 4 @5516 has 163 MA's), (54, 5819), (56, 5834),

Gene: JellyBread_7 Start: 5483, Stop: 5878, Start Num: 4
Candidate Starts for JellyBread_7:
(Start: 4 @5483 has 163 MA's), (54, 5786), (56, 5801),

Gene: Jifall16_27 Start: 18266, Stop: 18691, Start Num: 4
Candidate Starts for Jifall16_27:
(Start: 4 @18266 has 163 MA's), (8, 18275), (19, 18341), (49, 18575), (56, 18611), (69, 18659),

Gene: JoieB_40 Start: 15855, Stop: 16259, Start Num: 4
Candidate Starts for JoieB_40:
(Start: 4 @15855 has 163 MA's), (19, 15933), (25, 15987), (30, 16017), (34, 16047), (42, 16110), (45, 16122), (75, 16245),

Gene: JonJames_34 Start: 18062, Stop: 18463, Start Num: 4
Candidate Starts for JonJames_34:
(Start: 4 @18062 has 163 MA's), (11, 18083), (22, 18158),

Gene: Kabloowy_7 Start: 5558, Stop: 5953, Start Num: 4
Candidate Starts for Kabloowy_7:
(Start: 4 @5558 has 163 MA's), (35, 5768), (36, 5783), (54, 5861), (56, 5876),

Gene: Kabluna_31 Start: 17332, Stop: 17751, Start Num: 4
Candidate Starts for Kabluna_31:
(Start: 4 @17332 has 163 MA's), (8, 17341), (16, 17389), (40, 17596), (47, 17632), (56, 17677), (69, 17725),

Gene: KellEzio_23 Start: 12438, Stop: 12839, Start Num: 4
Candidate Starts for KellEzio_23:
(Start: 4 @12438 has 163 MA's), (20, 12525), (44, 12714),

Gene: KidneyBean_28 Start: 18378, Stop: 18803, Start Num: 4
Candidate Starts for KidneyBean_28:
(Start: 4 @18378 has 163 MA's), (8, 18387), (19, 18453), (49, 18687), (56, 18723), (69, 18771),

Gene: Kimchi1738_16 Start: 11758, Stop: 12177, Start Num: 4
Candidate Starts for Kimchi1738_16:
(Start: 4 @11758 has 163 MA's), (10, 11776), (19, 11845), (24, 11872), (60, 12124),

Gene: Kitkat_24 Start: 12556, Stop: 12957, Start Num: 4
Candidate Starts for Kitkat_24:
(Start: 4 @12556 has 163 MA's), (20, 12643), (44, 12832),

Gene: Kurt_28 Start: 18645, Stop: 19070, Start Num: 4
Candidate Starts for Kurt_28:
(Start: 4 @18645 has 163 MA's), (8, 18654), (19, 18720), (49, 18954), (56, 18990), (69, 19038),

Gene: Kuwabara_6 Start: 4848, Stop: 5222, Start Num: 4
Candidate Starts for Kuwabara_6:
(Start: 4 @4848 has 163 MA's), (21, 4926), (31, 5013), (34, 5028), (36, 5064), (43, 5097),

Gene: Lasker_7 Start: 5483, Stop: 5878, Start Num: 4
Candidate Starts for Lasker_7:
(Start: 4 @5483 has 163 MA's), (54, 5786), (56, 5801),

Gene: Lawnathon_7 Start: 5559, Stop: 5954, Start Num: 4
Candidate Starts for Lawnathon_7:
(Start: 4 @5559 has 163 MA's), (26, 5688), (36, 5784), (54, 5862), (56, 5877),

Gene: LeBruni_7 Start: 5531, Stop: 5926, Start Num: 4
Candidate Starts for LeBruni_7:
(Start: 4 @5531 has 163 MA's), (36, 5756), (54, 5834), (56, 5849),

Gene: LilSpotty_6 Start: 4547, Stop: 4921, Start Num: 4
Candidate Starts for LilSpotty_6:
(Start: 4 @4547 has 163 MA's), (8, 4556), (23, 4643), (31, 4712), (34, 4727), (50, 4817), (54, 4832), (59, 4862),

Gene: Lilas_6 Start: 5309, Stop: 5692, Start Num: 6
Candidate Starts for Lilas_6:
(Start: 6 @5309 has 17 MA's), (22, 5396), (31, 5477), (34, 5492), (56, 5612),

Gene: Lilbit_38 Start: 15832, Stop: 16236, Start Num: 4
Candidate Starts for Lilbit_38:
(Start: 4 @15832 has 163 MA's), (19, 15910), (25, 15964), (30, 15994), (34, 16024), (42, 16087), (45, 16099), (75, 16222),

Gene: LittleLaf_39 Start: 15561, Stop: 15965, Start Num: 4
Candidate Starts for LittleLaf_39:
(Start: 4 @15561 has 163 MA's), (19, 15639), (25, 15693), (30, 15723), (34, 15753), (42, 15816), (45, 15828), (75, 15951),

Gene: Lollipop1437_33 Start: 19240, Stop: 19659, Start Num: 4
Candidate Starts for Lollipop1437_33:
(Start: 4 @19240 has 163 MA's), (16, 19297), (60, 19606),

Gene: LonelyBoi_6 Start: 5156, Stop: 5539, Start Num: 6
Candidate Starts for LonelyBoi_6:
(Start: 6 @5156 has 17 MA's), (22, 5243), (30, 5315), (31, 5324), (34, 5339), (56, 5459),

Gene: Lozinak_34 Start: 13892, Stop: 14290, Start Num: 4
Candidate Starts for Lozinak_34:
(Start: 4 @13892 has 163 MA's), (45, 14162), (51, 14186),

Gene: LunaStella_6 Start: 5099, Stop: 5473, Start Num: 4
Candidate Starts for LunaStella_6:
(Start: 4 @5099 has 163 MA's), (34, 5279), (36, 5315), (50, 5369), (72, 5459), (73, 5462),

Gene: MUWow_6 Start: 5562, Stop: 5957, Start Num: 4
Candidate Starts for MUWow_6:
(Start: 4 @5562 has 163 MA's), (54, 5865), (56, 5880),

Gene: MacGully_36 Start: 19536, Stop: 19943, Start Num: 4
Candidate Starts for MacGully_36:
(Start: 4 @19536 has 163 MA's), (68, 19914),

Gene: Mapleville_6 Start: 5629, Stop: 6024, Start Num: 4
Candidate Starts for Mapleville_6:
(Start: 4 @5629 has 163 MA's), (26, 5758), (36, 5854), (54, 5932), (56, 5947),

Gene: Marietta_30 Start: 15781, Stop: 16227, Start Num: 4
Candidate Starts for Marietta_30:
(Start: 4 @15781 has 163 MA's), (8, 15790), (42, 16054), (46, 16072), (47, 16081), (60, 16147), (74, 16201),

Gene: Marteena_6 Start: 5309, Stop: 5692, Start Num: 6
Candidate Starts for Marteena_6:
(Start: 6 @5309 has 17 MA's), (22, 5396), (31, 5477), (34, 5492), (56, 5612),

Gene: Marvin_37 Start: 15831, Stop: 16235, Start Num: 4

Candidate Starts for Marvin_37:
(Start: 4 @15831 has 163 MA's), (19, 15909), (25, 15963), (30, 15993), (34, 16023), (42, 16086), (45, 16098), (75, 16221),

Gene: Maselop_32 Start: 19592, Stop: 19996, Start Num: 4
Candidate Starts for Maselop_32:
(Start: 4 @19592 has 163 MA's), (27, 19742), (40, 19841), (58, 19928), (60, 19943), (68, 19970),

Gene: MaterMagnus_7 Start: 5476, Stop: 5871, Start Num: 4
Candidate Starts for MaterMagnus_7:
(Start: 4 @5476 has 163 MA's), (54, 5779), (56, 5794),

Gene: MerCougar_29 Start: 18538, Stop: 18957, Start Num: 4
Candidate Starts for MerCougar_29:
(Start: 4 @18538 has 163 MA's), (8, 18547), (16, 18595), (29, 18700), (40, 18802), (47, 18838), (56, 18883), (61, 18907), (69, 18931),

Gene: MidnightRain_7 Start: 5476, Stop: 5871, Start Num: 4
Candidate Starts for MidnightRain_7:
(Start: 4 @5476 has 163 MA's), (36, 5701), (54, 5779), (56, 5794),

Gene: Miskis_32 Start: 13667, Stop: 14065, Start Num: 4
Candidate Starts for Miskis_32:
(Start: 4 @13667 has 163 MA's), (45, 13937), (51, 13961),

Gene: Mollymur_17 Start: 12082, Stop: 12492, Start Num: 4
Candidate Starts for Mollymur_17:
(Start: 4 @12082 has 163 MA's), (29, 12244), (50, 12373), (67, 12454),

Gene: MortyNRick_6 Start: 4848, Stop: 5222, Start Num: 4
Candidate Starts for MortyNRick_6:
(Start: 4 @4848 has 163 MA's), (21, 4926), (31, 5013), (34, 5028), (36, 5064), (43, 5097),

Gene: MosMoris_37 Start: 15011, Stop: 15415, Start Num: 4
Candidate Starts for MosMoris_37:
(Start: 4 @15011 has 163 MA's), (19, 15089), (25, 15143), (30, 15173), (34, 15203), (42, 15266), (45, 15278), (75, 15401),

Gene: MurphyJoseph_7 Start: 5487, Stop: 5882, Start Num: 4
Candidate Starts for MurphyJoseph_7:
(Start: 4 @5487 has 163 MA's), (35, 5697), (36, 5712), (56, 5805),

Gene: NadineRae_28 Start: 15027, Stop: 15473, Start Num: 4
Candidate Starts for NadineRae_28:
(Start: 4 @15027 has 163 MA's), (8, 15036), (42, 15300), (46, 15318), (47, 15327), (60, 15393),

Gene: NatB6_28 Start: 17654, Stop: 18079, Start Num: 4
Candidate Starts for NatB6_28:
(Start: 4 @17654 has 163 MA's), (8, 17663), (19, 17729), (49, 17963), (56, 17999), (69, 18047),

Gene: NewKitty_8 Start: 5705, Stop: 6100, Start Num: 4
Candidate Starts for NewKitty_8:
(Start: 4 @5705 has 163 MA's), (54, 6008), (56, 6023),

Gene: Norvs_35 Start: 13894, Stop: 14292, Start Num: 4
Candidate Starts for Norvs_35:
(Start: 4 @13894 has 163 MA's), (45, 14164), (51, 14188),

Gene: NosilaM_31 Start: 18229, Stop: 18648, Start Num: 4
Candidate Starts for NosilaM_31:
(Start: 4 @18229 has 163 MA's), (8, 18238), (16, 18286), (40, 18493), (47, 18529), (56, 18574), (69, 18622),

Gene: NovumRegina_28 Start: 17985, Stop: 18410, Start Num: 4
Candidate Starts for NovumRegina_28:
(Start: 4 @17985 has 163 MA's), (8, 17994), (19, 18060), (49, 18294), (56, 18330), (69, 18378),

Gene: Nyilah_6 Start: 5559, Stop: 5954, Start Num: 4
Candidate Starts for Nyilah_6:
(Start: 4 @5559 has 163 MA's), (35, 5769), (36, 5784), (54, 5862), (56, 5877),

Gene: OneUp_28 Start: 11666, Stop: 12067, Start Num: 4
Candidate Starts for OneUp_28:
(Start: 4 @11666 has 163 MA's), (27, 11816), (60, 12011),

Gene: Outis_29 Start: 18232, Stop: 18651, Start Num: 4
Candidate Starts for Outis_29:
(Start: 4 @18232 has 163 MA's), (8, 18241), (16, 18289), (29, 18394), (40, 18496), (47, 18532), (56, 18577), (61, 18601), (69, 18625),

Gene: P1201_31 Start: 19091, Stop: 19525, Start Num: 4
Candidate Starts for P1201_31:
(Start: 4 @19091 has 163 MA's), (18, 19166), (24, 19205), (27, 19256), (52, 19412),

Gene: Patio_31 Start: 18476, Stop: 18895, Start Num: 4
Candidate Starts for Patio_31:
(Start: 4 @18476 has 163 MA's), (16, 18533), (60, 18842),

Gene: Pemberton_31 Start: 15764, Stop: 16210, Start Num: 4
Candidate Starts for Pemberton_31:
(Start: 4 @15764 has 163 MA's), (8, 15773), (42, 16037), (46, 16055), (47, 16064), (60, 16130), (74, 16184),

Gene: Persistence_6 Start: 5584, Stop: 5979, Start Num: 4
Candidate Starts for Persistence_6:
(Start: 4 @5584 has 163 MA's), (54, 5887), (56, 5902),

Gene: PhinkBoden_34 Start: 14275, Stop: 14673, Start Num: 4
Candidate Starts for PhinkBoden_34:
(Start: 4 @14275 has 163 MA's), (45, 14545), (51, 14569),

Gene: Phomeo_27 Start: 18280, Stop: 18705, Start Num: 4
Candidate Starts for Phomeo_27:
(Start: 4 @18280 has 163 MA's), (8, 18289), (19, 18355), (49, 18589), (56, 18625), (69, 18673),

Gene: Phrank15_6 Start: 5630, Stop: 6025, Start Num: 4

Candidate Starts for Phrank15_6:
(Start: 4 @5630 has 163 MA's), (36, 5855), (54, 5933), (56, 5948),

Gene: Pleakley_37 Start: 18319, Stop: 18738, Start Num: 4
Candidate Starts for Pleakley_37:
(Start: 4 @18319 has 163 MA's), (8, 18328), (33, 18526), (40, 18583), (46, 18610), (53, 18646), (60, 18685),

Gene: Poise_39 Start: 15149, Stop: 15553, Start Num: 4
Candidate Starts for Poise_39:
(Start: 4 @15149 has 163 MA's), (19, 15227), (25, 15281), (30, 15311), (34, 15341), (42, 15404), (45, 15416), (75, 15539),

Gene: Pollux_6 Start: 5309, Stop: 5692, Start Num: 6
Candidate Starts for Pollux_6:
(Start: 6 @5309 has 17 MA's), (22, 5396), (31, 5477), (34, 5492), (56, 5612),

Gene: Polyyuki_32 Start: 19584, Stop: 19988, Start Num: 4
Candidate Starts for Polyyuki_32:
(Start: 4 @19584 has 163 MA's), (27, 19734), (40, 19833), (58, 19920), (60, 19935), (68, 19962),

Gene: Posh_6 Start: 5303, Stop: 5686, Start Num: 6
Candidate Starts for Posh_6:
(Start: 6 @5303 has 17 MA's), (22, 5390), (30, 5462), (31, 5471), (34, 5486), (56, 5606), (58, 5612),

Gene: PotatoChip_16 Start: 12127, Stop: 12546, Start Num: 4
Candidate Starts for PotatoChip_16:
(Start: 4 @12127 has 163 MA's), (10, 12145), (19, 12214), (24, 12241), (60, 12493),

Gene: Pringar_39 Start: 15461, Stop: 15865, Start Num: 4
Candidate Starts for Pringar_39:
(Start: 4 @15461 has 163 MA's), (19, 15539), (25, 15593), (30, 15623), (34, 15653), (42, 15716), (45, 15728), (75, 15851),

Gene: Pytheas_6 Start: 5156, Stop: 5539, Start Num: 6
Candidate Starts for Pytheas_6:
(Start: 6 @5156 has 17 MA's), (22, 5243), (31, 5324), (34, 5339), (43, 5408), (56, 5459),

Gene: RadFad_7 Start: 5476, Stop: 5871, Start Num: 4
Candidate Starts for RadFad_7:
(Start: 4 @5476 has 163 MA's), (36, 5701), (54, 5779), (56, 5794),

Gene: Raela_39 Start: 15704, Stop: 16108, Start Num: 4
Candidate Starts for Raela_39:
(Start: 4 @15704 has 163 MA's), (19, 15782), (25, 15836), (30, 15866), (34, 15896), (42, 15959), (45, 15971), (75, 16094),

Gene: Raphaella_7 Start: 5490, Stop: 5885, Start Num: 4
Candidate Starts for Raphaella_7:
(Start: 4 @5490 has 163 MA's), (54, 5793), (56, 5808),

Gene: RedRaider_35 Start: 20480, Stop: 20899, Start Num: 4
Candidate Starts for RedRaider_35:

(Start: 4 @20480 has 163 MA's), (16, 20537), (60, 20846),

Gene: RedRaider77_39 Start: 15605, Stop: 16009, Start Num: 4
Candidate Starts for RedRaider77_39:
(Start: 4 @15605 has 163 MA's), (19, 15683), (25, 15737), (30, 15767), (34, 15797), (42, 15860), (45, 15872), (75, 15995),

Gene: Renaud18_6 Start: 4979, Stop: 5353, Start Num: 4
Candidate Starts for Renaud18_6:
(Start: 4 @4979 has 163 MA's), (34, 5159), (36, 5195), (50, 5249), (72, 5339), (73, 5342),

Gene: Richie_7 Start: 5490, Stop: 5885, Start Num: 4
Candidate Starts for Richie_7:
(Start: 4 @5490 has 163 MA's), (54, 5793), (56, 5808),

Gene: SPB78_6 Start: 5176, Stop: 5565, Start Num: 7
Candidate Starts for SPB78_6:
(1, 4432), (2, 5038), (5, 5170), (Start: 7 @5176 has 1 MA's), (56, 5488),

Gene: Sakai_7 Start: 5484, Stop: 5879, Start Num: 4
Candidate Starts for Sakai_7:
(Start: 4 @5484 has 163 MA's), (54, 5787), (56, 5802),

Gene: Samy_9 Start: 6526, Stop: 6921, Start Num: 7
Candidate Starts for Samy_9:
(Start: 7 @6526 has 1 MA's), (22, 6613), (38, 6757), (47, 6799), (53, 6826),

Gene: Sashimi_8 Start: 5649, Stop: 6044, Start Num: 4
Candidate Starts for Sashimi_8:
(Start: 4 @5649 has 163 MA's), (36, 5874), (54, 5952), (56, 5967),

Gene: Satrap_7 Start: 5487, Stop: 5882, Start Num: 4
Candidate Starts for Satrap_7:
(Start: 4 @5487 has 163 MA's), (35, 5697), (36, 5712), (54, 5790), (56, 5805),

Gene: Scuba_37 Start: 18412, Stop: 18831, Start Num: 4
Candidate Starts for Scuba_37:
(Start: 4 @18412 has 163 MA's), (8, 18421), (33, 18619), (40, 18676), (46, 18703), (53, 18739), (60, 18778),

Gene: Seahorse_8 Start: 5761, Stop: 6156, Start Num: 4
Candidate Starts for Seahorse_8:
(Start: 4 @5761 has 163 MA's), (36, 5986), (39, 6001), (56, 6079),

Gene: Shukran_7 Start: 5487, Stop: 5882, Start Num: 4
Candidate Starts for Shukran_7:
(Start: 4 @5487 has 163 MA's), (35, 5697), (36, 5712), (54, 5790), (56, 5805),

Gene: Skysand_30 Start: 18696, Stop: 19115, Start Num: 4
Candidate Starts for Skysand_30:
(Start: 4 @18696 has 163 MA's), (16, 18753), (60, 19062),

Gene: Smoothie_35 Start: 13892, Stop: 14290, Start Num: 4

Candidate Starts for Smoothie_35:
(Start: 4 @13892 has 163 MA's), (45, 14162), (51, 14186),

Gene: SonDevVon_6 Start: 5477, Stop: 5872, Start Num: 4
Candidate Starts for SonDevVon_6:
(Start: 4 @5477 has 163 MA's), (54, 5780), (56, 5795),

Gene: SpeedDemon_170 Start: 11467, Stop: 11880, Start Num: 4
Candidate Starts for SpeedDemon_170:
(Start: 4 @11467 has 163 MA's), (22, 11563), (70, 11848),

Gene: SpicyFrank_7 Start: 5538, Stop: 5933, Start Num: 4
Candidate Starts for SpicyFrank_7:
(Start: 4 @5538 has 163 MA's), (54, 5841), (56, 5856),

Gene: Sporco_7 Start: 5535, Stop: 5930, Start Num: 4
Candidate Starts for Sporco_7:
(Start: 4 @5535 has 163 MA's), (54, 5838), (56, 5853),

Gene: StarStruck_29 Start: 18232, Stop: 18651, Start Num: 4
Candidate Starts for StarStruck_29:
(Start: 4 @18232 has 163 MA's), (8, 18241), (16, 18289), (29, 18394), (40, 18496), (47, 18532), (56, 18577), (61, 18601), (69, 18625),

Gene: Stickynote_18 Start: 12937, Stop: 13356, Start Num: 4
Candidate Starts for Stickynote_18:
(Start: 4 @12937 has 163 MA's), (10, 12955), (19, 13024), (24, 13051), (60, 13303),

Gene: Sukkupi_30 Start: 17338, Stop: 17784, Start Num: 4
Candidate Starts for Sukkupi_30:
(Start: 4 @17338 has 163 MA's), (8, 17347), (42, 17611), (46, 17629), (47, 17638), (60, 17704), (74, 17758),

Gene: SuperSulley_29 Start: 18417, Stop: 18836, Start Num: 4
Candidate Starts for SuperSulley_29:
(Start: 4 @18417 has 163 MA's), (8, 18426), (16, 18474), (40, 18681), (47, 18717), (56, 18762), (69, 18810),

Gene: TChen_6 Start: 5099, Stop: 5473, Start Num: 4
Candidate Starts for TChen_6:
(Start: 4 @5099 has 163 MA's), (34, 5279), (36, 5315), (50, 5369), (72, 5459), (73, 5462),

Gene: TPA4_7 Start: 5997, Stop: 6371, Start Num: 4
Candidate Starts for TPA4_7:
(Start: 4 @5997 has 163 MA's), (36, 6213), (43, 6246),

Gene: Tesla_38 Start: 15454, Stop: 15858, Start Num: 4
Candidate Starts for Tesla_38:
(Start: 4 @15454 has 163 MA's), (19, 15532), (25, 15586), (30, 15616), (34, 15646), (42, 15709), (45, 15721), (75, 15844),

Gene: ThayneTheZag_7 Start: 5512, Stop: 5907, Start Num: 4
Candidate Starts for ThayneTheZag_7:

(Start: 4 @5512 has 163 MA's), (35, 5722), (43, 5770), (56, 5830),

Gene: ThetaBob_6 Start: 4979, Stop: 5353, Start Num: 4
Candidate Starts for ThetaBob_6:
(Start: 4 @4979 has 163 MA's), (34, 5159), (36, 5195), (50, 5249), (72, 5339), (73, 5342),

Gene: Tiff81_8 Start: 5647, Stop: 6042, Start Num: 4
Candidate Starts for Tiff81_8:
(Start: 4 @5647 has 163 MA's), (35, 5857), (36, 5872), (54, 5950), (56, 5965),

Gene: Toniann_34 Start: 13837, Stop: 14235, Start Num: 4
Candidate Starts for Toniann_34:
(Start: 4 @13837 has 163 MA's), (45, 14107), (51, 14131),

Gene: Toron_6 Start: 5099, Stop: 5473, Start Num: 4
Candidate Starts for Toron_6:
(Start: 4 @5099 has 163 MA's), (34, 5279), (36, 5315), (50, 5369), (72, 5459), (73, 5462),

Gene: Towmatter_15 Start: 9869, Stop: 10279, Start Num: 4
Candidate Starts for Towmatter_15:
(Start: 4 @9869 has 163 MA's), (31, 10046), (50, 10160), (67, 10241),

Gene: Tracker_28 Start: 17408, Stop: 17833, Start Num: 4
Candidate Starts for Tracker_28:
(Start: 4 @17408 has 163 MA's), (8, 17417), (19, 17483), (49, 17717), (56, 17753), (69, 17801),

Gene: Turuncu_32 Start: 18728, Stop: 19147, Start Num: 4
Candidate Starts for Turuncu_32:
(Start: 4 @18728 has 163 MA's), (64, 19106),

Gene: VWB_6 Start: 5231, Stop: 5620, Start Num: 7
Candidate Starts for VWB_6:
(Start: 7 @5231 has 1 MA's), (53, 5525), (62, 5570),

Gene: VasuNzinga_39 Start: 15038, Stop: 15442, Start Num: 4
Candidate Starts for VasuNzinga_39:
(Start: 4 @15038 has 163 MA's), (19, 15116), (25, 15170), (30, 15200), (34, 15230), (42, 15293), (45, 15305), (75, 15428),

Gene: Vopal_8 Start: 5547, Stop: 5942, Start Num: 4
Candidate Starts for Vopal_8:
(Start: 4 @5547 has 163 MA's), (54, 5850), (56, 5865),

Gene: Wheezy_28 Start: 17611, Stop: 18036, Start Num: 4
Candidate Starts for Wheezy_28:
(Start: 4 @17611 has 163 MA's), (8, 17620), (19, 17686), (49, 17920), (56, 17956), (69, 18004),

Gene: WhoseManz_30 Start: 15392, Stop: 15838, Start Num: 4
Candidate Starts for WhoseManz_30:
(Start: 4 @15392 has 163 MA's), (8, 15401), (42, 15665), (46, 15683), (47, 15692), (60, 15758), (74, 15812),

Gene: WilliamBoone_34 Start: 13226, Stop: 13624, Start Num: 4

Candidate Starts for WilliamBoone_34:
(Start: 4 @13226 has 163 MA's), (45, 13496),

Gene: Windest_8 Start: 5547, Stop: 5942, Start Num: 4
Candidate Starts for Windest_8:
(Start: 4 @5547 has 163 MA's), (36, 5772), (37, 5775), (55, 5862), (56, 5865),

Gene: Wrigley_6 Start: 5153, Stop: 5536, Start Num: 6
Candidate Starts for Wrigley_6:
(Start: 6 @5153 has 17 MA's), (22, 5240), (31, 5321), (34, 5336), (56, 5456),

Gene: Yndexa_30 Start: 17338, Stop: 17784, Start Num: 4
Candidate Starts for Yndexa_30:
(Start: 4 @17338 has 163 MA's), (8, 17347), (42, 17611), (46, 17629), (47, 17638), (60, 17704), (74, 17758),

Gene: YoungHarleezy_7 Start: 5488, Stop: 5883, Start Num: 4
Candidate Starts for YoungHarleezy_7:
(Start: 4 @5488 has 163 MA's), (54, 5791), (56, 5806),

Gene: Yvonnetastic_32 Start: 15611, Stop: 16012, Start Num: 4
Candidate Starts for Yvonnetastic_32:
(Start: 4 @15611 has 163 MA's), (11, 15632), (22, 15707),

Gene: Zion_16 Start: 12125, Stop: 12544, Start Num: 4
Candidate Starts for Zion_16:
(Start: 4 @12125 has 163 MA's), (10, 12143), (19, 12212), (24, 12239), (60, 12491),

Gene: Zucker_7 Start: 5223, Stop: 5609, Start Num: 9
Candidate Starts for Zucker_7:
(Start: 9 @5223 has 4 MA's), (30, 5379), (32, 5397),