

Pham 311524



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 311524 Report

This analysis was run 06/27/26 on database version 652.

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 311524 has 75 members, 17 are drafts.

Phages represented in each track:

- Track 1 : Persistence_8, Ding_9, JakeTheSnake_9
- Track 2 : Raphaella_9, Auxilium_9, Bhageatrice_11, Faja_9, EvePickles_9, JellyBread_9, AdaS_9, NewKitty_10, CookieBear_9, BillyTP_9, Sporco_10, Windest_10
- Track 3 : DarwinJr_12, Crescenzo_9, MurphyJoseph_9, GumGum_9, Anekin_8
- Track 4 : BenchScraper_9, BasketStar_9, MUWow_8, Aikyam_9, Vopal_10, Lasker_9, YoungHarleezy_9, MaterMagnus_9, Sakai_9, Richie_9, SonDevVon_8, Gorpy_9
- Track 5 : Seahorse_10, Isolde_10, Nyilah_8, Tiff81_10, Kabloowy_9
- Track 6 : BlueShadow_9, LeBruni_9, RadFad_9, MidnightRain_9, Globfish_9, Hillester_9, ThayneTheZag_9
- Track 7 : Satrap_9, Shukran_9
- Track 8 : CosmicBrownie_8
- Track 9 : Mapleville_8, Lawnathon_9
- Track 10 : Sashimi_10
- Track 11 : Hestia_9
- Track 12 : Phrank15_8
- Track 13 : SpicyFrank_9
- Track 14 : SPB78_8
- Track 15 : OneUp_30
- Track 16 : BrutonGaster_24
- Track 17 : Lilas_8, Pollux_8, EnalisNailo_8, Floral_8, Bradissa_8, Marteena_8, BeeGee_8, BritBrat_8, Confidence_8
- Track 18 : EMSquaredA_8
- Track 19 : Angelique_8
- Track 20 : Pytheas_8, Jablanski_8
- Track 21 : Wrigley_8
- Track 22 : Posh_8
- Track 23 : Cashline_8
- Track 24 : LonelyBoi_8
- Track 25 : Cornie_7
- Track 26 : GAL1_10

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

The start number called the most often in the published annotations is 5, it was called in 38 of the 58 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_9, Aikyam_9, Anekin_8, Auxilium_9, BasketStar_9, BenchScraper_9, Bhageatrice_11, BillyTP_9, BlueShadow_9, CookieBear_9, CosmicBrownie_8, Crescenzo_9, DarwinJr_12, Ding_9, EvePickles_9, Faja_9, Globfish_9, Gorpy_9, GumGum_9, Hestia_9, Hillester_9, Isolde_10, JakeTheSnake_9, JellyBread_9, Kabloowy_9, Lasker_9, Lawnathon_9, LeBruni_9, MUWow_8, Mapleville_8, MaterMagnus_9, MidnightRain_9, MurphyJoseph_9, NewKitty_10, Nyilah_8, Persistence_8, Phrank15_8, RadFad_9, Raphaella_9, Richie_9, Sakai_9, Sashimi_10, Satrap_9, Seahorse_10, Shukran_9, SonDevVon_8, SpicyFrank_9, Sporco_10, ThayneTheZag_9, Tiff81_10, Vopal_10, Windest_10, YoungHarleezy_9,

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:

- Angelique_8, BeeGee_8, Bradissa_8, BritBrat_8, BrutonGaster_24, Cashline_8, Confidence_8, Cornie_7, EMSquaredA_8, EnalisNailo_8, Floral_8, GAL1_10, Jablanski_8, Lilas_8, LonelyBoi_8, Marteena_8, OneUp_30, Pollux_8, Posh_8, Pytheas_8, SPB78_8, Wrigley_8,

Summary by start number:

Start 5:

- Found in 53 of 75 (70.7%) of genes in pham
- Manual Annotations of this start: 38 of 58
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AdaS_9 (AY), Aikyam_9 (AY), Anekin_8 (AY), Auxilium_9 (AY), BasketStar_9 (AY), BenchScraper_9 (AY), Bhageatrice_11 (AY), BillyTP_9 (AY), BlueShadow_9 (AY), CookieBear_9 (AY), CosmicBrownie_8 (AY), Crescenzo_9 (AY), DarwinJr_12 (AY), Ding_9 (AY), EvePickles_9 (AY), Faja_9 (AY), Globfish_9 (AY), Gorpy_9 (AY), GumGum_9 (AY), Hestia_9 (AY), Hillester_9 (AY), Isolde_10 (AY), JakeTheSnake_9 (AY), JellyBread_9 (AY), Kabloowy_9 (AY), Lasker_9 (AY), Lawnathon_9 (AY), LeBruni_9 (AY), MUWow_8 (AY), Mapleville_8 (AY), MaterMagnus_9 (AY), MidnightRain_9 (AY), MurphyJoseph_9 (AY), NewKitty_10 (AY), Nyilah_8 (AY), Persistence_8 (AY), Phrank15_8 (AY), RadFad_9 (AY), Raphaella_9 (AY), Richie_9 (AY), Sakai_9 (AY), Sashimi_10 (AY), Satrap_9 (AY), Seahorse_10 (AY), Shukran_9 (AY), SonDevVon_8 (AY), SpicyFrank_9 (AY), Sporco_10 (AY), ThayneTheZag_9 (AY), Tiff81_10 (AY), Vopal_10 (AY), Windest_10 (AY), YoungHarleezy_9 (AY),

Start 6:

- Found in 1 of 75 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GAL1_10 (singleton),

Start 9:

- Found in 1 of 75 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 58
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cornie_7 (F5),

Start 12:

- Found in 1 of 75 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 58
- Called 100.0% of time when present
- Phage (with cluster) where this start called: OneUp_30 (CQ2),

Start 16:

- Found in 2 of 75 (2.7%) of genes in pham
- Manual Annotations of this start: 1 of 58
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster_24 (CQ2),

Start 17:

- Found in 1 of 75 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SPB78_8 (BA),

Start 19:

- Found in 17 of 75 (22.7%) of genes in pham
- Manual Annotations of this start: 1 of 58
- Called 5.9% of time when present
- Phage (with cluster) where this start called: EMsquaredA_8 (CY1),

Start 20:

- Found in 17 of 75 (22.7%) of genes in pham
- Manual Annotations of this start: 16 of 58
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Angelique_8 (CY1), BeeGee_8 (CY5), Bradissa_8 (CY1), BritBrat_8 (CY2), Cashline_8 (CY6), Confidence_8 (CY1), EnalisNailo_8 (CY1), Floral_8 (CY1), Jablanski_8 (CY3), Lilas_8 (CY1), LonelyBoi_8 (CY7), Marteen_8 (CY1), Pollux_8 (CY1), Posh_8 (CY4), Pytheas_8 (CY3), Wrigley_8 (CY4),

Summary by clusters:

There are 12 clusters represented in this pham: CY3, CY2, CY1, CY7, BA, CY5, CY4, singleton, AY, CQ2, CY6, F5,

Info for manual annotations of cluster AY:

- Start number 5 was manually annotated 38 times for cluster AY.

Info for manual annotations of cluster CQ2:

- Start number 12 was manually annotated 1 time for cluster CQ2.
- Start number 16 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster CY1:

- Start number 19 was manually annotated 1 time for cluster CY1.
- Start number 20 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 20 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 20 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 20 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 20 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

- Start number 20 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 20 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster F5:

- Start number 9 was manually annotated 1 time for cluster F5.

Gene Information:

Gene: AdaS_9 Start: 6955, Stop: 7278, Start Num: 5

Candidate Starts for AdaS_9:

(Start: 5 @6955 has 38 MA's), (13, 6976), (14, 6982), (23, 7069),

Gene: Aikyam_9 Start: 6941, Stop: 7279, Start Num: 5

Candidate Starts for Aikyam_9:

(Start: 5 @6941 has 38 MA's), (13, 6962), (14, 6968), (23, 7055), (29, 7094),

Gene: Anekin_8 Start: 7092, Stop: 7391, Start Num: 5

Candidate Starts for Anekin_8:

(Start: 5 @7092 has 38 MA's), (13, 7113), (18, 7167), (23, 7206),

Gene: Angelique_8 Start: 6756, Stop: 7109, Start Num: 20

Candidate Starts for Angelique_8:

(Start: 19 @6747 has 1 MA's), (Start: 20 @6756 has 16 MA's), (24, 6789), (26, 6795), (28, 6816), (32, 6936), (37, 7017),

Gene: Auxilium_9 Start: 6955, Stop: 7278, Start Num: 5

Candidate Starts for Auxilium_9:

(Start: 5 @6955 has 38 MA's), (13, 6976), (14, 6982), (23, 7069),

Gene: BasketStar_9 Start: 6994, Stop: 7332, Start Num: 5

Candidate Starts for BasketStar_9:

(Start: 5 @6994 has 38 MA's), (13, 7015), (14, 7021), (23, 7108), (29, 7147),

Gene: BeeGee_8 Start: 6755, Stop: 7111, Start Num: 20

Candidate Starts for BeeGee_8:

(1, 6197), (2, 6242), (3, 6326), (4, 6560), (7, 6665), (Start: 19 @6746 has 1 MA's), (Start: 20 @6755 has 16 MA's), (24, 6788), (26, 6794), (28, 6815), (37, 7019),

Gene: BenchScraper_9 Start: 6955, Stop: 7293, Start Num: 5

Candidate Starts for BenchScraper_9:

(Start: 5 @6955 has 38 MA's), (13, 6976), (14, 6982), (23, 7069), (29, 7108),

Gene: Bhageatrice_11 Start: 8150, Stop: 8488, Start Num: 5

Candidate Starts for Bhageatrice_11:

(Start: 5 @8150 has 38 MA's), (13, 8171), (14, 8177), (23, 8264),

Gene: BillyTP_9 Start: 6949, Stop: 7278, Start Num: 5

Candidate Starts for BillyTP_9:

(Start: 5 @6949 has 38 MA's), (13, 6970), (14, 6976), (23, 7063),

Gene: BlueShadow_9 Start: 6939, Stop: 7277, Start Num: 5

Candidate Starts for BlueShadow_9:

(Start: 5 @6939 has 38 MA's), (13, 6960), (14, 6966), (18, 7014), (23, 7053),

Gene: Bradissa_8 Start: 6759, Stop: 7115, Start Num: 20

Candidate Starts for Bradissa_8:

(1, 6201), (2, 6246), (3, 6330), (4, 6564), (7, 6669), (Start: 19 @6750 has 1 MA's), (Start: 20 @6759 has 16 MA's), (24, 6792), (26, 6798), (28, 6819), (37, 7023),

Gene: BritBrat_8 Start: 6761, Stop: 7117, Start Num: 20

Candidate Starts for BritBrat_8:

(1, 6203), (2, 6248), (3, 6332), (4, 6566), (7, 6671), (Start: 19 @6752 has 1 MA's), (Start: 20 @6761 has 16 MA's), (24, 6794), (26, 6800), (28, 6821), (37, 7025),

Gene: BrutonGaster_24 Start: 12147, Stop: 12392, Start Num: 16

Candidate Starts for BrutonGaster_24:

(8, 12096), (Start: 16 @12147 has 1 MA's),

Gene: Cashline_8 Start: 6608, Stop: 6964, Start Num: 20

Candidate Starts for Cashline_8:

(7, 6518), (Start: 19 @6599 has 1 MA's), (Start: 20 @6608 has 16 MA's), (24, 6641), (26, 6647), (28, 6668), (32, 6791), (37, 6872),

Gene: Confidence_8 Start: 6755, Stop: 7111, Start Num: 20

Candidate Starts for Confidence_8:

(1, 6197), (2, 6242), (3, 6326), (4, 6560), (7, 6665), (Start: 19 @6746 has 1 MA's), (Start: 20 @6755 has 16 MA's), (24, 6788), (26, 6794), (28, 6815), (37, 7019),

Gene: CookieBear_9 Start: 6955, Stop: 7278, Start Num: 5

Candidate Starts for CookieBear_9:

(Start: 5 @6955 has 38 MA's), (13, 6976), (14, 6982), (23, 7069),

Gene: Cornie_7 Start: 5933, Stop: 6220, Start Num: 9

Candidate Starts for Cornie_7:

(Start: 9 @5933 has 1 MA's), (10, 5936), (11, 5939), (15, 5975), (23, 6041), (34, 6152), (36, 6206),

Gene: CosmicBrownie_8 Start: 7070, Stop: 7348, Start Num: 5

Candidate Starts for CosmicBrownie_8:

(Start: 5 @7070 has 38 MA's), (13, 7091), (14, 7097), (18, 7145), (21, 7160), (23, 7184),

Gene: Crescenzo_9 Start: 7020, Stop: 7319, Start Num: 5

Candidate Starts for Crescenzo_9:

(Start: 5 @7020 has 38 MA's), (13, 7041), (18, 7095), (23, 7134),

Gene: DarwinJr_12 Start: 8323, Stop: 8622, Start Num: 5

Candidate Starts for DarwinJr_12:

(Start: 5 @8323 has 38 MA's), (13, 8344), (18, 8398), (23, 8437),

Gene: Ding_9 Start: 6965, Stop: 7249, Start Num: 5

Candidate Starts for Ding_9:

(Start: 5 @6965 has 38 MA's), (18, 7040), (23, 7079),

Gene: EMSquaredA_8 Start: 6752, Stop: 7117, Start Num: 19

Candidate Starts for EMSquaredA_8:

(1, 6203), (2, 6248), (3, 6332), (4, 6566), (7, 6671), (Start: 19 @6752 has 1 MA's), (Start: 20 @6761 has 16 MA's), (24, 6794), (26, 6800), (28, 6821), (37, 7025),

Gene: EnalisNailo_8 Start: 6761, Stop: 7117, Start Num: 20

Candidate Starts for EnalisNailo_8:

(1, 6203), (2, 6248), (3, 6332), (4, 6566), (7, 6671), (Start: 19 @6752 has 1 MA's), (Start: 20 @6761 has 16 MA's), (24, 6794), (26, 6800), (28, 6821), (37, 7025),

Gene: EvePickles_9 Start: 6997, Stop: 7335, Start Num: 5

Candidate Starts for EvePickles_9:

(Start: 5 @6997 has 38 MA's), (13, 7018), (14, 7024), (23, 7111),

Gene: Faja_9 Start: 6941, Stop: 7279, Start Num: 5

Candidate Starts for Faja_9:

(Start: 5 @6941 has 38 MA's), (13, 6962), (14, 6968), (23, 7055),

Gene: Floral_8 Start: 6761, Stop: 7117, Start Num: 20

Candidate Starts for Floral_8:

(1, 6203), (2, 6248), (3, 6332), (4, 6566), (7, 6671), (Start: 19 @6752 has 1 MA's), (Start: 20 @6761 has 16 MA's), (24, 6794), (26, 6800), (28, 6821), (37, 7025),

Gene: GAL1_10 Start: 7852, Stop: 8169, Start Num: 6

Candidate Starts for GAL1_10:

(6, 7852), (23, 7966), (25, 7975), (28, 7999), (31, 8068), (33, 8098), (34, 8104), (36, 8158),

Gene: Globfish_9 Start: 6999, Stop: 7322, Start Num: 5

Candidate Starts for Globfish_9:

(Start: 5 @6999 has 38 MA's), (13, 7020), (14, 7026), (18, 7074), (23, 7113),

Gene: Gorpy_9 Start: 6949, Stop: 7287, Start Num: 5

Candidate Starts for Gorpy_9:

(Start: 5 @6949 has 38 MA's), (13, 6970), (14, 6976), (23, 7063), (29, 7102),

Gene: GumGum_9 Start: 7024, Stop: 7323, Start Num: 5
Candidate Starts for GumGum_9:
(Start: 5 @7024 has 38 MA's), (13, 7045), (18, 7099), (23, 7138),

Gene: Hestia_9 Start: 7089, Stop: 7388, Start Num: 5
Candidate Starts for Hestia_9:
(Start: 5 @7089 has 38 MA's), (14, 7116), (18, 7164),

Gene: Hillester_9 Start: 6939, Stop: 7277, Start Num: 5
Candidate Starts for Hillester_9:
(Start: 5 @6939 has 38 MA's), (13, 6960), (14, 6966), (18, 7014), (23, 7053),

Gene: Isolde_10 Start: 7012, Stop: 7350, Start Num: 5
Candidate Starts for Isolde_10:
(Start: 5 @7012 has 38 MA's), (13, 7033), (14, 7039), (18, 7087), (23, 7126),

Gene: Jablanski_8 Start: 6608, Stop: 6964, Start Num: 20
Candidate Starts for Jablanski_8:
(1, 6050), (2, 6095), (4, 6413), (7, 6518), (Start: 19 @6599 has 1 MA's), (Start: 20 @6608 has 16 MA's), (24, 6641), (26, 6647), (28, 6668), (37, 6872),

Gene: JakeTheSnake_9 Start: 6979, Stop: 7278, Start Num: 5
Candidate Starts for JakeTheSnake_9:
(Start: 5 @6979 has 38 MA's), (18, 7054), (23, 7093),

Gene: JellyBread_9 Start: 6948, Stop: 7271, Start Num: 5
Candidate Starts for JellyBread_9:
(Start: 5 @6948 has 38 MA's), (13, 6969), (14, 6975), (23, 7062),

Gene: Kabloowy_9 Start: 7022, Stop: 7366, Start Num: 5
Candidate Starts for Kabloowy_9:
(Start: 5 @7022 has 38 MA's), (13, 7043), (14, 7049), (18, 7097), (23, 7136),

Gene: Lasker_9 Start: 6948, Stop: 7286, Start Num: 5
Candidate Starts for Lasker_9:
(Start: 5 @6948 has 38 MA's), (13, 6969), (14, 6975), (23, 7062), (29, 7101),

Gene: Lawnathon_9 Start: 7023, Stop: 7397, Start Num: 5
Candidate Starts for Lawnathon_9:
(Start: 5 @7023 has 38 MA's), (13, 7044), (14, 7050), (18, 7098), (23, 7137), (27, 7158),

Gene: LeBruni_9 Start: 6994, Stop: 7302, Start Num: 5
Candidate Starts for LeBruni_9:
(Start: 5 @6994 has 38 MA's), (13, 7015), (14, 7021), (18, 7069), (23, 7108),

Gene: Lilas_8 Start: 6761, Stop: 7117, Start Num: 20
Candidate Starts for Lilas_8:
(1, 6203), (2, 6248), (3, 6332), (4, 6566), (7, 6671), (Start: 19 @6752 has 1 MA's), (Start: 20 @6761 has 16 MA's), (24, 6794), (26, 6800), (28, 6821), (37, 7025),

Gene: LonelyBoi_8 Start: 6608, Stop: 6964, Start Num: 20
Candidate Starts for LonelyBoi_8:

(4, 6413), (7, 6518), (Start: 19 @6599 has 1 MA's), (Start: 20 @6608 has 16 MA's), (24, 6641), (26, 6647), (28, 6668), (37, 6872),

Gene: MUWow_8 Start: 7027, Stop: 7365, Start Num: 5

Candidate Starts for MUWow_8:

(Start: 5 @7027 has 38 MA's), (13, 7048), (14, 7054), (23, 7141), (29, 7180),

Gene: Mapleville_8 Start: 7093, Stop: 7467, Start Num: 5

Candidate Starts for Mapleville_8:

(Start: 5 @7093 has 38 MA's), (13, 7114), (14, 7120), (18, 7168), (23, 7207), (27, 7228),

Gene: Marteena_8 Start: 6761, Stop: 7117, Start Num: 20

Candidate Starts for Marteena_8:

(1, 6203), (2, 6248), (3, 6332), (4, 6566), (7, 6671), (Start: 19 @6752 has 1 MA's), (Start: 20 @6761 has 16 MA's), (24, 6794), (26, 6800), (28, 6821), (37, 7025),

Gene: MaterMagnus_9 Start: 6941, Stop: 7279, Start Num: 5

Candidate Starts for MaterMagnus_9:

(Start: 5 @6941 has 38 MA's), (13, 6962), (14, 6968), (23, 7055), (29, 7094),

Gene: MidnightRain_9 Start: 6939, Stop: 7277, Start Num: 5

Candidate Starts for MidnightRain_9:

(Start: 5 @6939 has 38 MA's), (13, 6960), (14, 6966), (18, 7014), (23, 7053),

Gene: MurphyJoseph_9 Start: 6950, Stop: 7249, Start Num: 5

Candidate Starts for MurphyJoseph_9:

(Start: 5 @6950 has 38 MA's), (13, 6971), (18, 7025), (23, 7064),

Gene: NewKitty_10 Start: 7170, Stop: 7508, Start Num: 5

Candidate Starts for NewKitty_10:

(Start: 5 @7170 has 38 MA's), (13, 7191), (14, 7197), (23, 7284),

Gene: Nyilah_8 Start: 7024, Stop: 7368, Start Num: 5

Candidate Starts for Nyilah_8:

(Start: 5 @7024 has 38 MA's), (13, 7045), (14, 7051), (18, 7099), (23, 7138),

Gene: OneUp_30 Start: 13194, Stop: 13478, Start Num: 12

Candidate Starts for OneUp_30:

(Start: 12 @13194 has 1 MA's), (Start: 16 @13233 has 1 MA's), (30, 13329),

Gene: Persistence_8 Start: 7047, Stop: 7346, Start Num: 5

Candidate Starts for Persistence_8:

(Start: 5 @7047 has 38 MA's), (18, 7122), (23, 7161),

Gene: Phrank15_8 Start: 7093, Stop: 7431, Start Num: 5

Candidate Starts for Phrank15_8:

(Start: 5 @7093 has 38 MA's), (13, 7114), (14, 7120), (23, 7207), (29, 7246),

Gene: Pollux_8 Start: 6761, Stop: 7117, Start Num: 20

Candidate Starts for Pollux_8:

(1, 6203), (2, 6248), (3, 6332), (4, 6566), (7, 6671), (Start: 19 @6752 has 1 MA's), (Start: 20 @6761 has 16 MA's), (24, 6794), (26, 6800), (28, 6821), (37, 7025),

Gene: Posh_8 Start: 6755, Stop: 7111, Start Num: 20
Candidate Starts for Posh_8:
(1, 6197), (2, 6242), (3, 6326), (4, 6560), (7, 6665), (Start: 19 @6746 has 1 MA's), (Start: 20 @6755 has 16 MA's), (24, 6788), (26, 6794), (37, 7019),

Gene: Pytheas_8 Start: 6608, Stop: 6964, Start Num: 20
Candidate Starts for Pytheas_8:
(1, 6050), (2, 6095), (4, 6413), (7, 6518), (Start: 19 @6599 has 1 MA's), (Start: 20 @6608 has 16 MA's), (24, 6641), (26, 6647), (28, 6668), (37, 6872),

Gene: RadFad_9 Start: 6939, Stop: 7277, Start Num: 5
Candidate Starts for RadFad_9:
(Start: 5 @6939 has 38 MA's), (13, 6960), (14, 6966), (18, 7014), (23, 7053),

Gene: Raphaella_9 Start: 6955, Stop: 7278, Start Num: 5
Candidate Starts for Raphaella_9:
(Start: 5 @6955 has 38 MA's), (13, 6976), (14, 6982), (23, 7069),

Gene: Richie_9 Start: 6955, Stop: 7293, Start Num: 5
Candidate Starts for Richie_9:
(Start: 5 @6955 has 38 MA's), (13, 6976), (14, 6982), (23, 7069), (29, 7108),

Gene: SPB78_8 Start: 6623, Stop: 6946, Start Num: 17
Candidate Starts for SPB78_8:
(7, 6548), (17, 6623), (22, 6650), (28, 6689), (35, 6872), (38, 6899), (39, 6941),

Gene: Sakai_9 Start: 6949, Stop: 7287, Start Num: 5
Candidate Starts for Sakai_9:
(Start: 5 @6949 has 38 MA's), (13, 6970), (14, 6976), (23, 7063), (29, 7102),

Gene: Sashimi_10 Start: 7112, Stop: 7393, Start Num: 5
Candidate Starts for Sashimi_10:
(Start: 5 @7112 has 38 MA's), (18, 7187), (23, 7226), (38, 7379),

Gene: Satrap_9 Start: 6950, Stop: 7231, Start Num: 5
Candidate Starts for Satrap_9:
(Start: 5 @6950 has 38 MA's), (18, 7025),

Gene: Seahorse_10 Start: 7220, Stop: 7498, Start Num: 5
Candidate Starts for Seahorse_10:
(Start: 5 @7220 has 38 MA's), (13, 7241), (14, 7247), (18, 7295), (23, 7334),

Gene: Shukran_9 Start: 6950, Stop: 7231, Start Num: 5
Candidate Starts for Shukran_9:
(Start: 5 @6950 has 38 MA's), (18, 7025),

Gene: SonDevVon_8 Start: 6942, Stop: 7280, Start Num: 5
Candidate Starts for SonDevVon_8:
(Start: 5 @6942 has 38 MA's), (13, 6963), (14, 6969), (23, 7056), (29, 7095),

Gene: SpicyFrank_9 Start: 7003, Stop: 7341, Start Num: 5
Candidate Starts for SpicyFrank_9:
(Start: 5 @7003 has 38 MA's), (13, 7024), (14, 7030), (23, 7117), (38, 7327),

Gene: Sporco_10 Start: 7000, Stop: 7329, Start Num: 5
Candidate Starts for Sporco_10:
(Start: 5 @7000 has 38 MA's), (13, 7021), (14, 7027), (23, 7114),

Gene: ThayneTheZag_9 Start: 6976, Stop: 7314, Start Num: 5
Candidate Starts for ThayneTheZag_9:
(Start: 5 @6976 has 38 MA's), (13, 6997), (14, 7003), (18, 7051), (23, 7090),

Gene: Tiff81_10 Start: 7112, Stop: 7456, Start Num: 5
Candidate Starts for Tiff81_10:
(Start: 5 @7112 has 38 MA's), (13, 7133), (14, 7139), (18, 7187), (23, 7226),

Gene: Vopal_10 Start: 7012, Stop: 7350, Start Num: 5
Candidate Starts for Vopal_10:
(Start: 5 @7012 has 38 MA's), (13, 7033), (14, 7039), (23, 7126), (29, 7165),

Gene: Windest_10 Start: 7012, Stop: 7335, Start Num: 5
Candidate Starts for Windest_10:
(Start: 5 @7012 has 38 MA's), (13, 7033), (14, 7039), (23, 7126),

Gene: Wrigley_8 Start: 6605, Stop: 6961, Start Num: 20
Candidate Starts for Wrigley_8:
(4, 6410), (7, 6515), (Start: 19 @6596 has 1 MA's), (Start: 20 @6605 has 16 MA's), (24, 6638), (26, 6644), (28, 6665), (37, 6869),

Gene: YoungHarleezy_9 Start: 6953, Stop: 7291, Start Num: 5
Candidate Starts for YoungHarleezy_9:
(Start: 5 @6953 has 38 MA's), (13, 6974), (14, 6980), (23, 7067), (29, 7106),