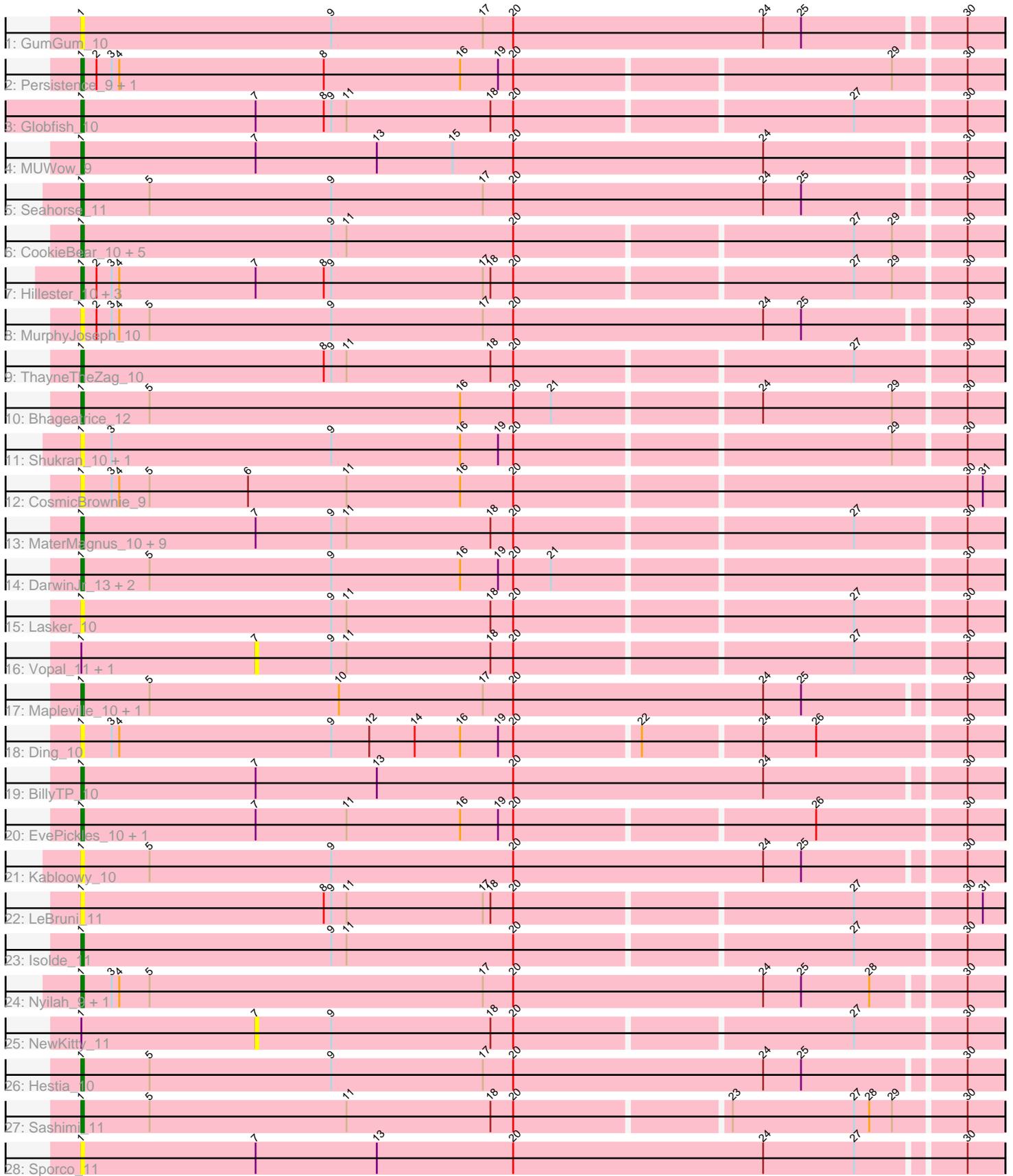# Pham 285633

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 285633 Report

This analysis was run 03/28/26 on database version 641.

Pham number 285633 has 53 members, 20 are drafts.

Phages represented in each track:
• Track 1 : GumGum_10
• Track 2 : Persistence_9, JakeTheSnake_10
• Track 3 : Globfish_10
• Track 4 : MUWow_9
• Track 5 : Seahorse_11
• Track 6 : CookieBear_10, Windest_11, AdaS_10, Raphaella_10, JellyBread_10, Auxilium_10
• Track 7 : Hillester_10, RadFad_10, MidnightRain_10, BlueShadow_10
• Track 8 : MurphyJoseph_10
• Track 9 : ThayneTheZag_10
• Track 10 : Bhageatrice_12
• Track 11 : Shukran_10, Satrap_10
• Track 12 : CosmicBrownie_9
• Track 13 : MaterMagnus_10, Aikyam_10, BenchScraper_10, SpicyFrank_10, Richie_10, Sakai_10, Phrank15_9, SonDevVon_9, YoungHarleezy_10, Gorpy_10
• Track 14 : DarwinJr_13, Crescenzo_10, Anekin_9
• Track 15 : Lasker_10
• Track 16 : Vopal_11, BasketStar_10
• Track 17 : Mapleville_10, Lawnathon_10
• Track 18 : Ding_10
• Track 19 : BillyTP_10
• Track 20 : EvePickles_10, Faja_10
• Track 21 : Kabloowy_10
• Track 22 : LeBruni_11
• Track 23 : Isolde_11
• Track 24 : Nyilah_9, Tiff81_11
• Track 25 : NewKitty_11
• Track 26 : Hestia_10
• Track 27 : Sashimi_11
• Track 28 : Sporco_11

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

The start number called the most often in the published annotations is 1, it was called in 33 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AdaS_10, Aikyam_10, Anekin_9, Auxilium_10, BenchScraper_10, Bhageatrice_12, BillyTP_10, BlueShadow_10, CookieBear_10, CosmicBrownie_9, Crescenzo_10, DarwinJr_13, Ding_10, EvePickles_10, Faja_10, Globfish_10, Gorpy_10, GumGum_10, Hestia_10, Hillester_10, Isolde_11, JakeTheSnake_10, JellyBread_10, Kabloowy_10, Lasker_10, Lawnathon_10, LeBruni_11, MUWow_9, Mapleville_10, MaterMagnus_10, MidnightRain_10, MurphyJoseph_10, Nyilah_9, Persistence_9, Phrank15_9, RadFad_10, Raphaella_10, Richie_10, Sakai_10, Sashimi_11, Satrap_10, Seahorse_11, Shukran_10, SonDevVon_9, SpicyFrank_10, Sporco_11, ThayneTheZag_10, Tiff81_11, Windest_11, YoungHarleezy_10,

Genes that have the "Most Annotated" start but do not call it:
• BasketStar_10, NewKitty_11, Vopal_11,

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

Summary by start number:

Start 1:
• Found in 53 of 53 (100.0%) of genes in pham
• Manual Annotations of this start: 33 of 33
• Called 94.3% of time when present
• Phage (with cluster) where this start called: AdaS_10 (AY), Aikyam_10 (AY), Anekin_9 (AY), Auxilium_10 (AY), BenchScraper_10 (AY), Bhageatrice_12 (AY), BillyTP_10 (AY), BlueShadow_10 (AY), CookieBear_10 (AY), CosmicBrownie_9 (AY), Crescenzo_10 (AY), DarwinJr_13 (AY), Ding_10 (AY), EvePickles_10 (AY), Faja_10 (AY), Globfish_10 (AY), Gorpy_10 (AY), GumGum_10 (AY), Hestia_10 (AY), Hillester_10 (AY), Isolde_11 (AY), JakeTheSnake_10 (AY), JellyBread_10 (AY), Kabloowy_10 (AY), Lasker_10 (AY), Lawnathon_10 (AY), LeBruni_11 (AY), MUWow_9 (AY), Mapleville_10 (AY), MaterMagnus_10 (AY), MidnightRain_10 (AY), MurphyJoseph_10 (AY), Nyilah_9 (AY), Persistence_9 (AY), Phrank15_9 (AY), RadFad_10 (AY), Raphaella_10 (AY), Richie_10 (AY), Sakai_10 (AY), Sashimi_11 (AY), Satrap_10 (AY), Seahorse_11 (AY), Shukran_10 (AY), SonDevVon_9 (AY), SpicyFrank_10 (AY), Sporco_11 (AY), ThayneTheZag_10 (AY), Tiff81_11 (AY), Windest_11 (AY), YoungHarleezy_10 (AY),

Start 7:
• Found in 23 of 53 (43.4%) of genes in pham
• No Manual Annotations of this start.
• Called 13.0% of time when present
• Phage (with cluster) where this start called: BasketStar_10 (AY), NewKitty_11 (AY), Vopal_11 (AY),

Summary by clusters:

There is one cluster represented in this pham: AY

Info for manual annotations of cluster AY:
•Start number 1 was manually annotated 33 times for cluster AY.

Gene Information:

Gene: AdaS_10 Start: 7295, Stop: 7651, Start Num: 1
Candidate Starts for AdaS_10:
(Start: 1 @7295 has 33 MA's), (9, 7394), (11, 7400), (20, 7466), (27, 7595), (29, 7610), (30, 7637),

Gene: Aikyam_10 Start: 7296, Stop: 7652, Start Num: 1
Candidate Starts for Aikyam_10:
(Start: 1 @7296 has 33 MA's), (7, 7365), (9, 7395), (11, 7401), (18, 7458), (20, 7467), (27, 7596), (30, 7638),

Gene: Anekin_9 Start: 7408, Stop: 7764, Start Num: 1
Candidate Starts for Anekin_9:
(Start: 1 @7408 has 33 MA's), (5, 7435), (9, 7507), (16, 7558), (19, 7573), (20, 7579), (21, 7594), (30, 7750),

Gene: Auxilium_10 Start: 7295, Stop: 7651, Start Num: 1
Candidate Starts for Auxilium_10:
(Start: 1 @7295 has 33 MA's), (9, 7394), (11, 7400), (20, 7466), (27, 7595), (29, 7610), (30, 7637),

Gene: BasketStar_10 Start: 7418, Stop: 7705, Start Num: 7
Candidate Starts for BasketStar_10:
(Start: 1 @7349 has 33 MA's), (7, 7418), (9, 7448), (11, 7454), (18, 7511), (20, 7520), (27, 7649), (30, 7691),

Gene: BenchScraper_10 Start: 7310, Stop: 7666, Start Num: 1
Candidate Starts for BenchScraper_10:
(Start: 1 @7310 has 33 MA's), (7, 7379), (9, 7409), (11, 7415), (18, 7472), (20, 7481), (27, 7610), (30, 7652),

Gene: Bhageatrice_12 Start: 8505, Stop: 8861, Start Num: 1
Candidate Starts for Bhageatrice_12:
(Start: 1 @8505 has 33 MA's), (5, 8532), (16, 8655), (20, 8676), (21, 8691), (24, 8769), (29, 8820), (30, 8847),

Gene: BillyTP_10 Start: 7295, Stop: 7654, Start Num: 1
Candidate Starts for BillyTP_10:
(Start: 1 @7295 has 33 MA's), (7, 7364), (13, 7412), (20, 7466), (24, 7565), (30, 7640),

Gene: BlueShadow_10 Start: 7292, Stop: 7648, Start Num: 1
Candidate Starts for BlueShadow_10:
(Start: 1 @7292 has 33 MA's), (2, 7298), (3, 7304), (4, 7307), (7, 7361), (8, 7388), (9, 7391), (17, 7451), (18, 7454), (20, 7463), (27, 7592), (29, 7607), (30, 7634),

Gene: CookieBear_10 Start: 7295, Stop: 7651, Start Num: 1
Candidate Starts for CookieBear_10:
(Start: 1 @7295 has 33 MA's), (9, 7394), (11, 7400), (20, 7466), (27, 7595), (29, 7610), (30, 7637),

Gene: CosmicBrownie_9 Start: 7364, Stop: 7723, Start Num: 1
Candidate Starts for CosmicBrownie_9:

(Start: 1 @7364 has 33 MA's), (3, 7376), (4, 7379), (5, 7391), (6, 7430), (11, 7469), (16, 7514), (20, 7535), (30, 7709), (31, 7715),

Gene: Crescenzo_10 Start: 7336, Stop: 7692, Start Num: 1
Candidate Starts for Crescenzo_10:
(Start: 1 @7336 has 33 MA's), (5, 7363), (9, 7435), (16, 7486), (19, 7501), (20, 7507), (21, 7522), (30, 7678),

Gene: DarwinJr_13 Start: 8639, Stop: 8995, Start Num: 1
Candidate Starts for DarwinJr_13:
(Start: 1 @8639 has 33 MA's), (5, 8666), (9, 8738), (16, 8789), (19, 8804), (20, 8810), (21, 8825), (30, 8981),

Gene: Ding_10 Start: 7266, Stop: 7622, Start Num: 1
Candidate Starts for Ding_10:
(Start: 1 @7266 has 33 MA's), (3, 7278), (4, 7281), (9, 7365), (12, 7380), (14, 7398), (16, 7416), (19, 7431), (20, 7437), (22, 7485), (24, 7530), (26, 7551), (30, 7608),

Gene: EvePickles_10 Start: 7351, Stop: 7707, Start Num: 1
Candidate Starts for EvePickles_10:
(Start: 1 @7351 has 33 MA's), (7, 7420), (11, 7456), (16, 7501), (19, 7516), (20, 7522), (26, 7636), (30, 7693),

Gene: Faja_10 Start: 7295, Stop: 7651, Start Num: 1
Candidate Starts for Faja_10:
(Start: 1 @7295 has 33 MA's), (7, 7364), (11, 7400), (16, 7445), (19, 7460), (20, 7466), (26, 7580), (30, 7637),

Gene: Globfish_10 Start: 7340, Stop: 7696, Start Num: 1
Candidate Starts for Globfish_10:
(Start: 1 @7340 has 33 MA's), (7, 7409), (8, 7436), (9, 7439), (11, 7445), (18, 7502), (20, 7511), (27, 7640), (30, 7682),

Gene: Gorpy_10 Start: 7304, Stop: 7660, Start Num: 1
Candidate Starts for Gorpy_10:
(Start: 1 @7304 has 33 MA's), (7, 7373), (9, 7403), (11, 7409), (18, 7466), (20, 7475), (27, 7604), (30, 7646),

Gene: GumGum_10 Start: 7340, Stop: 7699, Start Num: 1
Candidate Starts for GumGum_10:
(Start: 1 @7340 has 33 MA's), (9, 7439), (17, 7499), (20, 7511), (24, 7610), (25, 7625), (30, 7685),

Gene: Hestia_10 Start: 7405, Stop: 7764, Start Num: 1
Candidate Starts for Hestia_10:
(Start: 1 @7405 has 33 MA's), (5, 7432), (9, 7504), (17, 7564), (20, 7576), (24, 7675), (25, 7690), (30, 7750),

Gene: Hillester_10 Start: 7292, Stop: 7648, Start Num: 1
Candidate Starts for Hillester_10:
(Start: 1 @7292 has 33 MA's), (2, 7298), (3, 7304), (4, 7307), (7, 7361), (8, 7388), (9, 7391), (17, 7451), (18, 7454), (20, 7463), (27, 7592), (29, 7607), (30, 7634),

Gene: Isolde_11 Start: 7366, Stop: 7722, Start Num: 1

Candidate Starts for Isolde_11:
(Start: 1 @7366 has 33 MA's), (9, 7465), (11, 7471), (20, 7537), (27, 7666), (30, 7708),

Gene: JakeTheSnake_10 Start: 7295, Stop: 7651, Start Num: 1
Candidate Starts for JakeTheSnake_10:
(Start: 1 @7295 has 33 MA's), (2, 7301), (3, 7307), (4, 7310), (8, 7391), (16, 7445), (19, 7460), (20, 7466), (29, 7610), (30, 7637),

Gene: JellyBread_10 Start: 7288, Stop: 7644, Start Num: 1
Candidate Starts for JellyBread_10:
(Start: 1 @7288 has 33 MA's), (9, 7387), (11, 7393), (20, 7459), (27, 7588), (29, 7603), (30, 7630),

Gene: Kabloowy_10 Start: 7382, Stop: 7741, Start Num: 1
Candidate Starts for Kabloowy_10:
(Start: 1 @7382 has 33 MA's), (5, 7409), (9, 7481), (20, 7553), (24, 7652), (25, 7667), (30, 7727),

Gene: Lasker_10 Start: 7303, Stop: 7659, Start Num: 1
Candidate Starts for Lasker_10:
(Start: 1 @7303 has 33 MA's), (9, 7402), (11, 7408), (18, 7465), (20, 7474), (27, 7603), (30, 7645),

Gene: Lawnathon_10 Start: 7413, Stop: 7772, Start Num: 1
Candidate Starts for Lawnathon_10:
(Start: 1 @7413 has 33 MA's), (5, 7440), (10, 7515), (17, 7572), (20, 7584), (24, 7683), (25, 7698), (30, 7758),

Gene: LeBruni_11 Start: 7318, Stop: 7674, Start Num: 1
Candidate Starts for LeBruni_11:
(Start: 1 @7318 has 33 MA's), (8, 7414), (9, 7417), (11, 7423), (17, 7477), (18, 7480), (20, 7489), (27, 7618), (30, 7660), (31, 7666),

Gene: MUWow_9 Start: 7382, Stop: 7741, Start Num: 1
Candidate Starts for MUWow_9:
(Start: 1 @7382 has 33 MA's), (7, 7451), (13, 7499), (15, 7529), (20, 7553), (24, 7652), (30, 7727),

Gene: Mapleville_10 Start: 7483, Stop: 7842, Start Num: 1
Candidate Starts for Mapleville_10:
(Start: 1 @7483 has 33 MA's), (5, 7510), (10, 7585), (17, 7642), (20, 7654), (24, 7753), (25, 7768), (30, 7828),

Gene: MaterMagnus_10 Start: 7296, Stop: 7652, Start Num: 1
Candidate Starts for MaterMagnus_10:
(Start: 1 @7296 has 33 MA's), (7, 7365), (9, 7395), (11, 7401), (18, 7458), (20, 7467), (27, 7596), (30, 7638),

Gene: MidnightRain_10 Start: 7292, Stop: 7648, Start Num: 1
Candidate Starts for MidnightRain_10:
(Start: 1 @7292 has 33 MA's), (2, 7298), (3, 7304), (4, 7307), (7, 7361), (8, 7388), (9, 7391), (17, 7451), (18, 7454), (20, 7463), (27, 7592), (29, 7607), (30, 7634),

Gene: MurphyJoseph_10 Start: 7266, Stop: 7625, Start Num: 1
Candidate Starts for MurphyJoseph_10:
(Start: 1 @7266 has 33 MA's), (2, 7272), (3, 7278), (4, 7281), (5, 7293), (9, 7365), (17, 7425), (20, 7437), (24, 7536), (25, 7551), (30, 7611),

Gene: NewKitty_11 Start: 7594, Stop: 7881, Start Num: 7
Candidate Starts for NewKitty_11:
(Start: 1 @7525 has 33 MA's), (7, 7594), (9, 7624), (18, 7687), (20, 7696), (27, 7825), (30, 7867),

Gene: Nyilah_9 Start: 7384, Stop: 7743, Start Num: 1
Candidate Starts for Nyilah_9:
(Start: 1 @7384 has 33 MA's), (3, 7396), (4, 7399), (5, 7411), (17, 7543), (20, 7555), (24, 7654), (25, 7669), (28, 7696), (30, 7729),

Gene: Persistence_9 Start: 7363, Stop: 7719, Start Num: 1
Candidate Starts for Persistence_9:
(Start: 1 @7363 has 33 MA's), (2, 7369), (3, 7375), (4, 7378), (8, 7459), (16, 7513), (19, 7528), (20, 7534), (29, 7678), (30, 7705),

Gene: Phrank15_9 Start: 7448, Stop: 7804, Start Num: 1
Candidate Starts for Phrank15_9:
(Start: 1 @7448 has 33 MA's), (7, 7517), (9, 7547), (11, 7553), (18, 7610), (20, 7619), (27, 7748), (30, 7790),

Gene: RadFad_10 Start: 7292, Stop: 7648, Start Num: 1
Candidate Starts for RadFad_10:
(Start: 1 @7292 has 33 MA's), (2, 7298), (3, 7304), (4, 7307), (7, 7361), (8, 7388), (9, 7391), (17, 7451), (18, 7454), (20, 7463), (27, 7592), (29, 7607), (30, 7634),

Gene: Raphaella_10 Start: 7295, Stop: 7651, Start Num: 1
Candidate Starts for Raphaella_10:
(Start: 1 @7295 has 33 MA's), (9, 7394), (11, 7400), (20, 7466), (27, 7595), (29, 7610), (30, 7637),

Gene: Richie_10 Start: 7310, Stop: 7666, Start Num: 1
Candidate Starts for Richie_10:
(Start: 1 @7310 has 33 MA's), (7, 7379), (9, 7409), (11, 7415), (18, 7472), (20, 7481), (27, 7610), (30, 7652),

Gene: Sakai_10 Start: 7304, Stop: 7660, Start Num: 1
Candidate Starts for Sakai_10:
(Start: 1 @7304 has 33 MA's), (7, 7373), (9, 7403), (11, 7409), (18, 7466), (20, 7475), (27, 7604), (30, 7646),

Gene: Sashimi_11 Start: 7410, Stop: 7766, Start Num: 1
Candidate Starts for Sashimi_11:
(Start: 1 @7410 has 33 MA's), (5, 7437), (11, 7515), (18, 7572), (20, 7581), (23, 7662), (27, 7710), (28, 7716), (29, 7725), (30, 7752),

Gene: Satrap_10 Start: 7247, Stop: 7603, Start Num: 1
Candidate Starts for Satrap_10:
(Start: 1 @7247 has 33 MA's), (3, 7259), (9, 7346), (16, 7397), (19, 7412), (20, 7418), (29, 7562), (30, 7589),

Gene: Seahorse_11 Start: 7514, Stop: 7873, Start Num: 1
Candidate Starts for Seahorse_11:
(Start: 1 @7514 has 33 MA's), (5, 7541), (9, 7613), (17, 7673), (20, 7685), (24, 7784), (25, 7799), (30, 7859),

Gene: Shukran_10 Start: 7247, Stop: 7603, Start Num: 1
Candidate Starts for Shukran_10:
(Start: 1 @7247 has 33 MA's), (3, 7259), (9, 7346), (16, 7397), (19, 7412), (20, 7418), (29, 7562), (30, 7589),

Gene: SonDevVon_9 Start: 7297, Stop: 7653, Start Num: 1
Candidate Starts for SonDevVon_9:
(Start: 1 @7297 has 33 MA's), (7, 7366), (9, 7396), (11, 7402), (18, 7459), (20, 7468), (27, 7597), (30, 7639),

Gene: SpicyFrank_10 Start: 7358, Stop: 7714, Start Num: 1
Candidate Starts for SpicyFrank_10:
(Start: 1 @7358 has 33 MA's), (7, 7427), (9, 7457), (11, 7463), (18, 7520), (20, 7529), (27, 7658), (30, 7700),

Gene: Sporco_11 Start: 7346, Stop: 7705, Start Num: 1
Candidate Starts for Sporco_11:
(Start: 1 @7346 has 33 MA's), (7, 7415), (13, 7463), (20, 7517), (24, 7616), (27, 7652), (30, 7691),

Gene: ThayneTheZag_10 Start: 7332, Stop: 7688, Start Num: 1
Candidate Starts for ThayneTheZag_10:
(Start: 1 @7332 has 33 MA's), (8, 7428), (9, 7431), (11, 7437), (18, 7494), (20, 7503), (27, 7632), (30, 7674),

Gene: Tiff81_11 Start: 7472, Stop: 7831, Start Num: 1
Candidate Starts for Tiff81_11:
(Start: 1 @7472 has 33 MA's), (3, 7484), (4, 7487), (5, 7499), (17, 7631), (20, 7643), (24, 7742), (25, 7757), (28, 7784), (30, 7817),

Gene: Vopal_11 Start: 7436, Stop: 7723, Start Num: 7
Candidate Starts for Vopal_11:
(Start: 1 @7367 has 33 MA's), (7, 7436), (9, 7466), (11, 7472), (18, 7529), (20, 7538), (27, 7667), (30, 7709),

Gene: Windest_11 Start: 7352, Stop: 7708, Start Num: 1
Candidate Starts for Windest_11:
(Start: 1 @7352 has 33 MA's), (9, 7451), (11, 7457), (20, 7523), (27, 7652), (29, 7667), (30, 7694),

Gene: YoungHarleezy_10 Start: 7308, Stop: 7664, Start Num: 1
Candidate Starts for YoungHarleezy_10:
(Start: 1 @7308 has 33 MA's), (7, 7377), (9, 7407), (11, 7413), (18, 7470), (20, 7479), (27, 7608), (30, 7650),