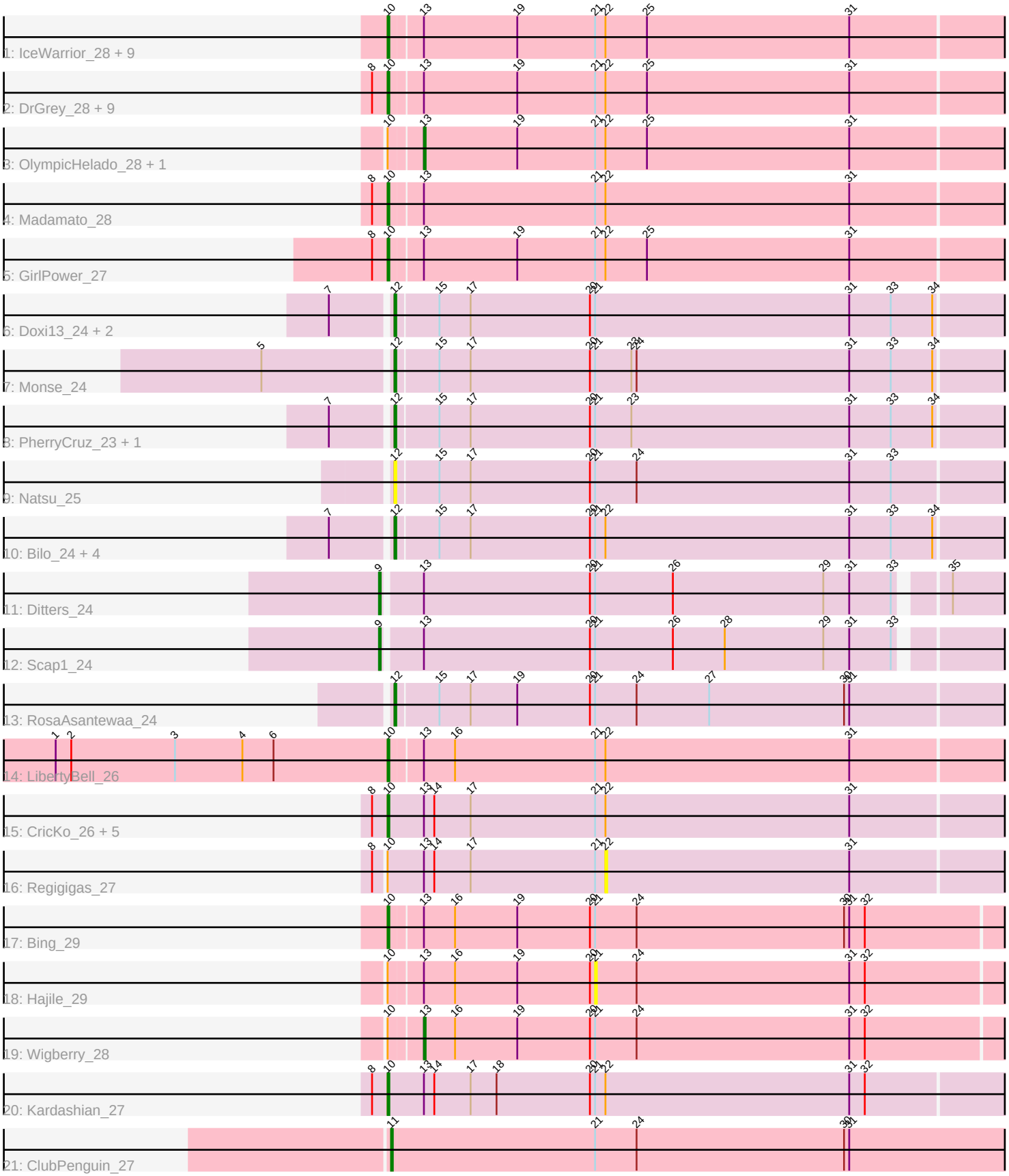
Pham 344087


1: IceWarrior_28 + 9
2: DrGrey_28 + 9
3: OlympicHelado_28 + 1
4: Madamato_28
5: GirlPower_27
6: Doxi13_24 + 2
7: Monse_24
8: PherryCruz_23 + 1
9: Natsu_25
10: Bilo_24 + 4
11: Ditters_24
12: Scap1_24
13: RosaAsantewaa_24
14: LibertyBell_26
15: CricKo_26 + 5
16: Regigigas_27
17: Bing_29
18: Hajile_29
19: Wigberry_28
20: Kardashian_27
21: ClubPenguin_27

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 344087 Report

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

Pham number 344087 has 52 members, 5 are drafts.

Phages represented in each track:
• Track 1 : IceWarrior_28, Hoshi_28, CherryBlossom_28, Indigenous_28, TaidaOne_28, Rima_28, Esketit_28, TonyStarch_28, Namo_28, TieDye_27
• Track 2 : DrGrey_28, Espio_28, FidgetOrca_28, HazuAndZazu_28, Popy_28, Soshi_28, FrodoSwaggins_28, Maya_28, Meibysrarus_28, Jaylociraptor_28
• Track 3 : OlympicHelado_28, Spectropatronm_28
• Track 4 : Madamato_28
• Track 5 : GirlPower_27
• Track 6 : Doxi13_24, GoblinVoyage_24, Sangak_24
• Track 7 : Monse_24
• Track 8 : PherryCruz_23, RavenPuff_23
• Track 9 : Natsu_25
• Track 10 : Bilo_24, Annihilus_24, HotFries_23, SheRa_24, Moozy_24
• Track 11 : Ditters_24
• Track 12 : Scap1_24
• Track 13 : RosaAsantewaa_24
• Track 14 : LibertyBell_26
• Track 15 : CricKo_26, Miek_26, FromIndy_27, Rainydai_26, Thiqqums_26, SendItCS_25
• Track 16 : Regigigas_27
• Track 17 : Bing_29
• Track 18 : Hajile_29
• Track 19 : Wigberry_28
• Track 20 : Kardashian_27
• Track 21 : ClubPenguin_27

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

The start number called the most often in the published annotations is 10, it was called in 30 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Bing_29, CherryBlossom_28, CricKo_26, DrGrey_28, Esketit_28, Espio_28, FidgetOrca_28, FrodoSwaggins_28, FromIndy_27, GirlPower_27, HazuAndZazu_28, Hoshi_28, IceWarrior_28, Indigenous_28, Jaylociraptor_28, Kardashian_27,

LibertyBell_26, Madamato_28, Maya_28, Meibysrarus_28, Miek_26, Namo_28, Popy_28, Rainydai_26, Rima_28, SendItCS_25, Soshi_28, TaidaOne_28, Thiqqums_26, TieDye_27, TonyStarch_28,

Genes that have the "Most Annotated" start but do not call it:
• Hajile_29, OlympicHelado_28, Regigigas_27, Spectropatronm_28, Wigberry_28,

Genes that do not have the "Most Annotated" start:
• Annihilus_24, Bilo_24, ClubPenguin_27, Ditters_24, Doxi13_24, GoblinVoyage_24, HotFries_23, Monse_24, Moozy_24, Natsu_25, PherryCruz_23, RavenPuff_23, RosaAsantewaa_24, Sangak_24, Scap1_24, SheRa_24,

Summary by start number:

Start 9:
• Found in 2 of 52 (3.8%) of genes in pham
• Manual Annotations of this start: 2 of 47
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ditters_24 (BI2), Scap1_24 (BI2),

Start 10:
• Found in 36 of 52 (69.2%) of genes in pham
• Manual Annotations of this start: 30 of 47
• Called 86.1% of time when present
• Phage (with cluster) where this start called: Bing_29 (BI5), CherryBlossom_28 (BI1), CricKo_26 (BI4), DrGrey_28 (BI1), Esketit_28 (BI1), Espio_28 (BI1), FidgetOrca_28 (BI1), FrodoSwaggins_28 (BI1), FromIndy_27 (BI4), GirlPower_27 (BI1), HazuAndZazu_28 (BI1), Hoshi_28 (BI1), IceWarrior_28 (BI1), Indigenous_28 (BI1), Jaylociraptor_28 (BI1), Kardashian_27 (BI6), LibertyBell_26 (BI3), Madamato_28 (BI1), Maya_28 (BI1), Meibysrarus_28 (BI1), Miek_26 (BI4), Namo_28 (BI1), Popy_28 (BI1), Rainydai_26 (BI4), Rima_28 (BI1), SendItCS_25 (BI4), Soshi_28 (BI1), TaidaOne_28 (BI1), Thiqqums_26 (BI4), TieDye_27 (BI1), TonyStarch_28 (BI1),

Start 11:
• Found in 1 of 52 (1.9%) of genes in pham
• Manual Annotations of this start: 1 of 47
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ClubPenguin_27 (BI7),

Start 12:
• Found in 13 of 52 (25.0%) of genes in pham
• Manual Annotations of this start: 11 of 47
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Annihilus_24 (BI2), Bilo_24 (BI2), Doxi13_24 (BI2), GoblinVoyage_24 (BI2), HotFries_23 (BI2), Monse_24 (BI2), Moozy_24 (BI2), Natsu_25 (BI2), PherryCruz_23 (BI2), RavenPuff_23 (BI2), RosaAsantewaa_24 (BI2), Sangak_24 (BI2), SheRa_24 (BI2),

Start 13:
• Found in 38 of 52 (73.1%) of genes in pham
• Manual Annotations of this start: 3 of 47
• Called 7.9% of time when present

• Phage (with cluster) where this start called: OlympicHelado_28 (BI1), Spectropatronm_28 (BI1), Wigberry_28 (BI5),

Start 21:
• Found in 52 of 52 (100.0%) of genes in pham
• No Manual Annotations of this start.
• Called 1.9% of time when present
• Phage (with cluster) where this start called: Hajile_29 (BI5),

Start 22:
• Found in 38 of 52 (73.1%) of genes in pham
• No Manual Annotations of this start.
• Called 2.6% of time when present
• Phage (with cluster) where this start called: Regigigas_27 (BI4),

Summary by clusters:

There are 7 clusters represented in this pham: BI6, BI7, BI4, BI5, BI2, BI3, BI1,

Info for manual annotations of cluster BI1:
•Start number 10 was manually annotated 22 times for cluster BI1.
•Start number 13 was manually annotated 2 times for cluster BI1.

Info for manual annotations of cluster BI2:
•Start number 9 was manually annotated 2 times for cluster BI2.
•Start number 12 was manually annotated 11 times for cluster BI2.

Info for manual annotations of cluster BI3:
•Start number 10 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:
•Start number 10 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI5:
•Start number 10 was manually annotated 1 time for cluster BI5.
•Start number 13 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster BI6:
•Start number 10 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:
•Start number 11 was manually annotated 1 time for cluster BI7.

Gene Information:

Gene: Annihilus_24 Start: 21982, Stop: 22377, Start Num: 12
Candidate Starts for Annihilus_24:
(7, 21949), (Start: 12 @21982 has 11 MA's), (15, 22006), (17, 22024), (20, 22093), (21, 22096), (22, 22102), (31, 22243), (33, 22267), (34, 22291),

Gene: Bilo_24 Start: 22473, Stop: 22868, Start Num: 12

Candidate Starts for Bilo_24:
(7, 22440), (Start: 12 @22473 has 11 MA's), (15, 22497), (17, 22515), (20, 22584), (21, 22587), (22, 22593), (31, 22734), (33, 22758), (34, 22782),

Gene: Bing_29 Start: 24774, Stop: 25172, Start Num: 10
Candidate Starts for Bing_29:
(Start: 10 @24774 has 30 MA's), (Start: 13 @24792 has 3 MA's), (16, 24810), (19, 24846), (20, 24888), (21, 24891), (24, 24915), (30, 25035), (31, 25038), (32, 25047),

Gene: CherryBlossom_28 Start: 24924, Stop: 25322, Start Num: 10
Candidate Starts for CherryBlossom_28:
(Start: 10 @24924 has 30 MA's), (Start: 13 @24942 has 3 MA's), (19, 24996), (21, 25041), (22, 25047), (25, 25071), (31, 25188),

Gene: ClubPenguin_27 Start: 24548, Stop: 24946, Start Num: 11
Candidate Starts for ClubPenguin_27:
(Start: 11 @24548 has 1 MA's), (21, 24665), (24, 24689), (30, 24809), (31, 24812),

Gene: CricKo_26 Start: 23808, Stop: 24212, Start Num: 10
Candidate Starts for CricKo_26:
(8, 23802), (Start: 10 @23808 has 30 MA's), (Start: 13 @23829 has 3 MA's), (14, 23835), (17, 23856), (21, 23928), (22, 23934), (31, 24075),

Gene: Ditters_24 Start: 22435, Stop: 22827, Start Num: 9
Candidate Starts for Ditters_24:
(Start: 9 @22435 has 2 MA's), (Start: 13 @22456 has 3 MA's), (20, 22552), (21, 22555), (26, 22600), (29, 22687), (31, 22702), (33, 22726), (35, 22750),

Gene: Doxi13_24 Start: 21953, Stop: 22348, Start Num: 12
Candidate Starts for Doxi13_24:
(7, 21920), (Start: 12 @21953 has 11 MA's), (15, 21977), (17, 21995), (20, 22064), (21, 22067), (31, 22214), (33, 22238), (34, 22262),

Gene: DrGrey_28 Start: 25424, Stop: 25822, Start Num: 10
Candidate Starts for DrGrey_28:
(8, 25418), (Start: 10 @25424 has 30 MA's), (Start: 13 @25442 has 3 MA's), (19, 25496), (21, 25541), (22, 25547), (25, 25571), (31, 25688),

Gene: Esketit_28 Start: 24907, Stop: 25305, Start Num: 10
Candidate Starts for Esketit_28:
(Start: 10 @24907 has 30 MA's), (Start: 13 @24925 has 3 MA's), (19, 24979), (21, 25024), (22, 25030), (25, 25054), (31, 25171),

Gene: Espio_28 Start: 25425, Stop: 25823, Start Num: 10
Candidate Starts for Espio_28:
(8, 25419), (Start: 10 @25425 has 30 MA's), (Start: 13 @25443 has 3 MA's), (19, 25497), (21, 25542), (22, 25548), (25, 25572), (31, 25689),

Gene: FidgetOrca_28 Start: 24913, Stop: 25311, Start Num: 10
Candidate Starts for FidgetOrca_28:
(8, 24907), (Start: 10 @24913 has 30 MA's), (Start: 13 @24931 has 3 MA's), (19, 24985), (21, 25030), (22, 25036), (25, 25060), (31, 25177),

Gene: FrodoSwaggins_28 Start: 25424, Stop: 25822, Start Num: 10
Candidate Starts for FrodoSwaggins_28:
(8, 25418), (Start: 10 @25424 has 30 MA's), (Start: 13 @25442 has 3 MA's), (19, 25496), (21, 25541), (22, 25547), (25, 25571), (31, 25688),

Gene: FromIndy_27 Start: 23796, Stop: 24200, Start Num: 10
Candidate Starts for FromIndy_27:
(8, 23790), (Start: 10 @23796 has 30 MA's), (Start: 13 @23817 has 3 MA's), (14, 23823), (17, 23844), (21, 23916), (22, 23922), (31, 24063),

Gene: GirlPower_27 Start: 26395, Stop: 26793, Start Num: 10
Candidate Starts for GirlPower_27:
(8, 26389), (Start: 10 @26395 has 30 MA's), (Start: 13 @26413 has 3 MA's), (19, 26467), (21, 26512), (22, 26518), (25, 26542), (31, 26659),

Gene: GoblinVoyage_24 Start: 21953, Stop: 22348, Start Num: 12
Candidate Starts for GoblinVoyage_24:
(7, 21920), (Start: 12 @21953 has 11 MA's), (15, 21977), (17, 21995), (20, 22064), (21, 22067), (31, 22214), (33, 22238), (34, 22262),

Gene: Hajile_29 Start: 24440, Stop: 24721, Start Num: 21
Candidate Starts for Hajile_29:
(Start: 10 @24323 has 30 MA's), (Start: 13 @24341 has 3 MA's), (16, 24359), (19, 24395), (20, 24437), (21, 24440), (24, 24464), (31, 24587), (32, 24596),

Gene: HazuAndZazu_28 Start: 25425, Stop: 25823, Start Num: 10
Candidate Starts for HazuAndZazu_28:
(8, 25419), (Start: 10 @25425 has 30 MA's), (Start: 13 @25443 has 3 MA's), (19, 25497), (21, 25542), (22, 25548), (25, 25572), (31, 25689),

Gene: Hoshi_28 Start: 24907, Stop: 25305, Start Num: 10
Candidate Starts for Hoshi_28:
(Start: 10 @24907 has 30 MA's), (Start: 13 @24925 has 3 MA's), (19, 24979), (21, 25024), (22, 25030), (25, 25054), (31, 25171),

Gene: HotFries_23 Start: 21952, Stop: 22347, Start Num: 12
Candidate Starts for HotFries_23:
(7, 21919), (Start: 12 @21952 has 11 MA's), (15, 21976), (17, 21994), (20, 22063), (21, 22066), (22, 22072), (31, 22213), (33, 22237), (34, 22261),

Gene: IceWarrior_28 Start: 24907, Stop: 25305, Start Num: 10
Candidate Starts for IceWarrior_28:
(Start: 10 @24907 has 30 MA's), (Start: 13 @24925 has 3 MA's), (19, 24979), (21, 25024), (22, 25030), (25, 25054), (31, 25171),

Gene: Indigenous_28 Start: 24907, Stop: 25305, Start Num: 10
Candidate Starts for Indigenous_28:
(Start: 10 @24907 has 30 MA's), (Start: 13 @24925 has 3 MA's), (19, 24979), (21, 25024), (22, 25030), (25, 25054), (31, 25171),

Gene: Jaylociraptor_28 Start: 24907, Stop: 25305, Start Num: 10
Candidate Starts for Jaylociraptor_28:

(8, 24901), (Start: 10 @24907 has 30 MA's), (Start: 13 @24925 has 3 MA's), (19, 24979), (21, 25024), (22, 25030), (25, 25054), (31, 25171),

Gene: Kardashian_27 Start: 24854, Stop: 25255, Start Num: 10
Candidate Starts for Kardashian_27:
(8, 24845), (Start: 10 @24854 has 30 MA's), (Start: 13 @24875 has 3 MA's), (14, 24881), (17, 24902), (18, 24917), (20, 24971), (21, 24974), (22, 24980), (31, 25121), (32, 25130),

Gene: LibertyBell_26 Start: 23755, Stop: 24153, Start Num: 10
Candidate Starts for LibertyBell_26:
(1, 23566), (2, 23575), (3, 23635), (4, 23674), (6, 23692), (Start: 10 @23755 has 30 MA's), (Start: 13 @23773 has 3 MA's), (16, 23791), (21, 23872), (22, 23878), (31, 24019),

Gene: Madamato_28 Start: 24885, Stop: 25283, Start Num: 10
Candidate Starts for Madamato_28:
(8, 24879), (Start: 10 @24885 has 30 MA's), (Start: 13 @24903 has 3 MA's), (21, 25002), (22, 25008), (31, 25149),

Gene: Maya_28 Start: 24921, Stop: 25319, Start Num: 10
Candidate Starts for Maya_28:
(8, 24915), (Start: 10 @24921 has 30 MA's), (Start: 13 @24939 has 3 MA's), (19, 24993), (21, 25038), (22, 25044), (25, 25068), (31, 25185),

Gene: Meibysrarus_28 Start: 24907, Stop: 25305, Start Num: 10
Candidate Starts for Meibysrarus_28:
(8, 24901), (Start: 10 @24907 has 30 MA's), (Start: 13 @24925 has 3 MA's), (19, 24979), (21, 25024), (22, 25030), (25, 25054), (31, 25171),

Gene: Miek_26 Start: 23808, Stop: 24212, Start Num: 10
Candidate Starts for Miek_26:
(8, 23802), (Start: 10 @23808 has 30 MA's), (Start: 13 @23829 has 3 MA's), (14, 23835), (17, 23856), (21, 23928), (22, 23934), (31, 24075),

Gene: Monse_24 Start: 21984, Stop: 22379, Start Num: 12
Candidate Starts for Monse_24:
(5, 21912), (Start: 12 @21984 has 11 MA's), (15, 22008), (17, 22026), (20, 22095), (21, 22098), (23, 22119), (24, 22122), (31, 22245), (33, 22269), (34, 22293),

Gene: Moozy_24 Start: 21969, Stop: 22364, Start Num: 12
Candidate Starts for Moozy_24:
(7, 21936), (Start: 12 @21969 has 11 MA's), (15, 21993), (17, 22011), (20, 22080), (21, 22083), (22, 22089), (31, 22230), (33, 22254), (34, 22278),

Gene: Namo_28 Start: 24913, Stop: 25311, Start Num: 10
Candidate Starts for Namo_28:
(Start: 10 @24913 has 30 MA's), (Start: 13 @24931 has 3 MA's), (19, 24985), (21, 25030), (22, 25036), (25, 25060), (31, 25177),

Gene: Natsu_25 Start: 21998, Stop: 22393, Start Num: 12
Candidate Starts for Natsu_25:
(Start: 12 @21998 has 11 MA's), (15, 22022), (17, 22040), (20, 22109), (21, 22112), (24, 22136), (31, 22259), (33, 22283),

Gene: OlympicHelado_28 Start: 24931, Stop: 25311, Start Num: 13
Candidate Starts for OlympicHelado_28:
(Start: 10 @24913 has 30 MA's), (Start: 13 @24931 has 3 MA's), (19, 24985), (21, 25030), (22, 25036), (25, 25060), (31, 25177),

Gene: PherryCruz_23 Start: 21954, Stop: 22349, Start Num: 12
Candidate Starts for PherryCruz_23:
(7, 21921), (Start: 12 @21954 has 11 MA's), (15, 21978), (17, 21996), (20, 22065), (21, 22068), (23, 22089), (31, 22215), (33, 22239), (34, 22263),

Gene: Popy_28 Start: 25424, Stop: 25822, Start Num: 10
Candidate Starts for Popy_28:
(8, 25418), (Start: 10 @25424 has 30 MA's), (Start: 13 @25442 has 3 MA's), (19, 25496), (21, 25541), (22, 25547), (25, 25571), (31, 25688),

Gene: Rainydai_26 Start: 23808, Stop: 24212, Start Num: 10
Candidate Starts for Rainydai_26:
(8, 23802), (Start: 10 @23808 has 30 MA's), (Start: 13 @23829 has 3 MA's), (14, 23835), (17, 23856), (21, 23928), (22, 23934), (31, 24075),

Gene: RavenPuff_23 Start: 21954, Stop: 22349, Start Num: 12
Candidate Starts for RavenPuff_23:
(7, 21921), (Start: 12 @21954 has 11 MA's), (15, 21978), (17, 21996), (20, 22065), (21, 22068), (23, 22089), (31, 22215), (33, 22239), (34, 22263),

Gene: Regigigas_27 Start: 23934, Stop: 24212, Start Num: 22
Candidate Starts for Regigigas_27:
(8, 23802), (Start: 10 @23808 has 30 MA's), (Start: 13 @23829 has 3 MA's), (14, 23835), (17, 23856), (21, 23928), (22, 23934), (31, 24075),

Gene: Rima_28 Start: 24913, Stop: 25311, Start Num: 10
Candidate Starts for Rima_28:
(Start: 10 @24913 has 30 MA's), (Start: 13 @24931 has 3 MA's), (19, 24985), (21, 25030), (22, 25036), (25, 25060), (31, 25177),

Gene: RosaAsantewaa_24 Start: 21825, Stop: 22220, Start Num: 12
Candidate Starts for RosaAsantewaa_24:
(Start: 12 @21825 has 11 MA's), (15, 21849), (17, 21867), (19, 21894), (20, 21936), (21, 21939), (24, 21963), (27, 22005), (30, 22083), (31, 22086),

Gene: Sangak_24 Start: 21954, Stop: 22349, Start Num: 12
Candidate Starts for Sangak_24:
(7, 21921), (Start: 12 @21954 has 11 MA's), (15, 21978), (17, 21996), (20, 22065), (21, 22068), (31, 22215), (33, 22239), (34, 22263),

Gene: Scap1_24 Start: 21905, Stop: 22297, Start Num: 9
Candidate Starts for Scap1_24:
(Start: 9 @21905 has 2 MA's), (Start: 13 @21926 has 3 MA's), (20, 22022), (21, 22025), (26, 22070), (28, 22100), (29, 22157), (31, 22172), (33, 22196),

Gene: SendItCS_25 Start: 23808, Stop: 24212, Start Num: 10
Candidate Starts for SendItCS_25:

(8, 23802), (Start: 10 @23808 has 30 MA's), (Start: 13 @23829 has 3 MA's), (14, 23835), (17, 23856), (21, 23928), (22, 23934), (31, 24075),

Gene: SheRa_24 Start: 21953, Stop: 22348, Start Num: 12
Candidate Starts for SheRa_24:
(7, 21920), (Start: 12 @21953 has 11 MA's), (15, 21977), (17, 21995), (20, 22064), (21, 22067), (22, 22073), (31, 22214), (33, 22238), (34, 22262),

Gene: Soshi_28 Start: 25430, Stop: 25828, Start Num: 10
Candidate Starts for Soshi_28:
(8, 25424), (Start: 10 @25430 has 30 MA's), (Start: 13 @25448 has 3 MA's), (19, 25502), (21, 25547), (22, 25553), (25, 25577), (31, 25694),

Gene: Spectropatronm_28 Start: 24925, Stop: 25305, Start Num: 13
Candidate Starts for Spectropatronm_28:
(Start: 10 @24907 has 30 MA's), (Start: 13 @24925 has 3 MA's), (19, 24979), (21, 25024), (22, 25030), (25, 25054), (31, 25171),

Gene: TaidaOne_28 Start: 25555, Stop: 25953, Start Num: 10
Candidate Starts for TaidaOne_28:
(Start: 10 @25555 has 30 MA's), (Start: 13 @25573 has 3 MA's), (19, 25627), (21, 25672), (22, 25678), (25, 25702), (31, 25819),

Gene: Thiqqums_26 Start: 23808, Stop: 24212, Start Num: 10
Candidate Starts for Thiqqums_26:
(8, 23802), (Start: 10 @23808 has 30 MA's), (Start: 13 @23829 has 3 MA's), (14, 23835), (17, 23856), (21, 23928), (22, 23934), (31, 24075),

Gene: TieDye_27 Start: 24599, Stop: 24997, Start Num: 10
Candidate Starts for TieDye_27:
(Start: 10 @24599 has 30 MA's), (Start: 13 @24617 has 3 MA's), (19, 24671), (21, 24716), (22, 24722), (25, 24746), (31, 24863),

Gene: TonyStarch_28 Start: 24913, Stop: 25311, Start Num: 10
Candidate Starts for TonyStarch_28:
(Start: 10 @24913 has 30 MA's), (Start: 13 @24931 has 3 MA's), (19, 24985), (21, 25030), (22, 25036), (25, 25060), (31, 25177),

Gene: Wigberry_28 Start: 24344, Stop: 24724, Start Num: 13
Candidate Starts for Wigberry_28:
(Start: 10 @24326 has 30 MA's), (Start: 13 @24344 has 3 MA's), (16, 24362), (19, 24398), (20, 24440), (21, 24443), (24, 24467), (31, 24590), (32, 24599),