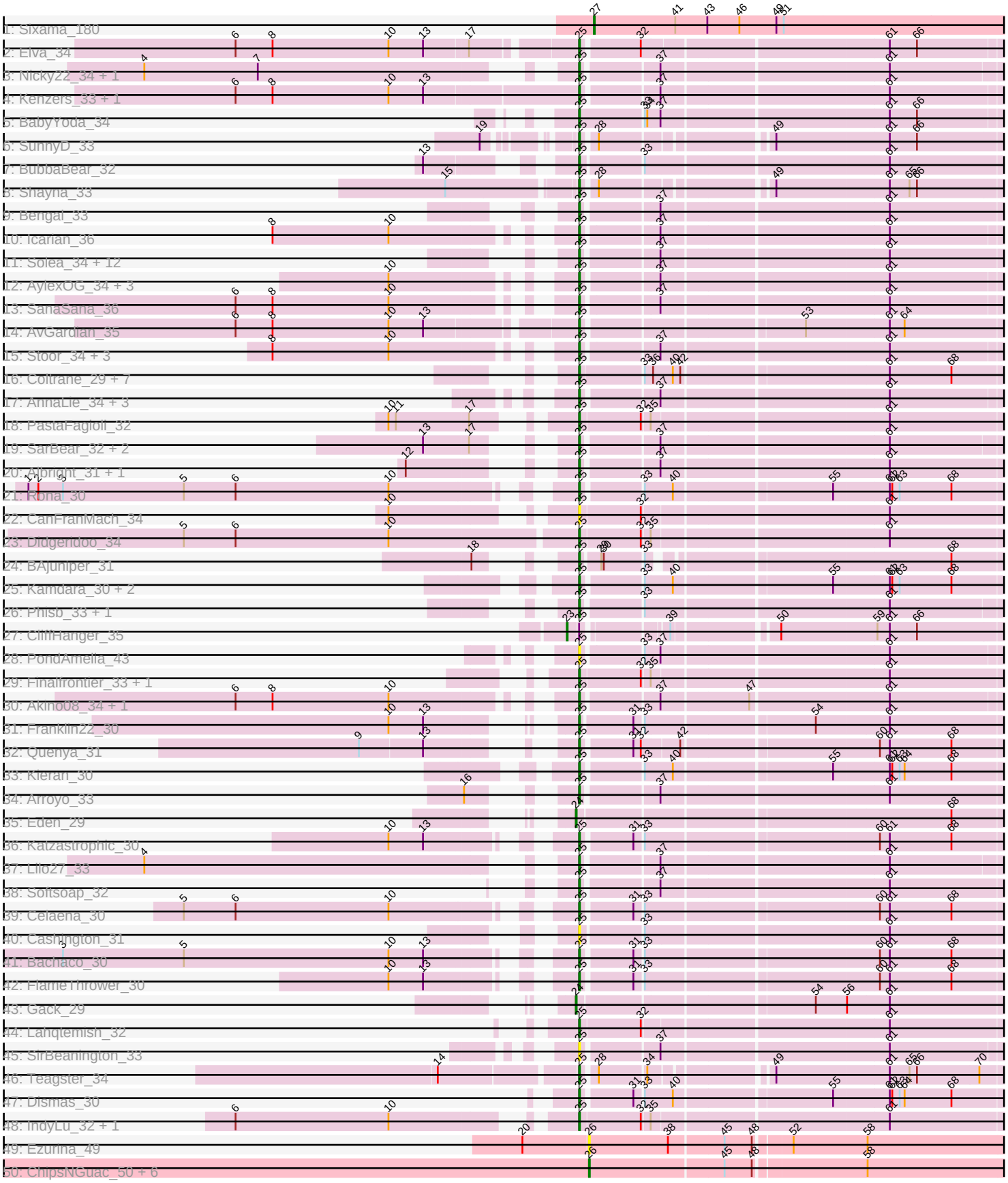
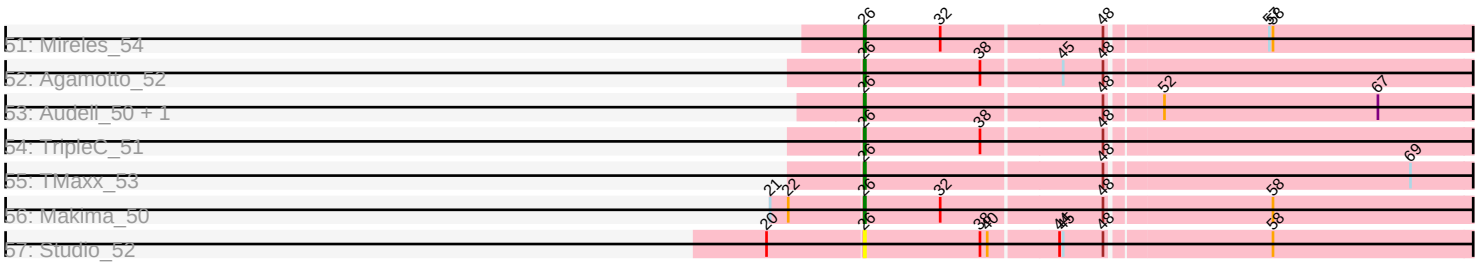
Pham 311417


1: Sixama_180
2: Elva_34
3: Nicky22_34 + 1
4: Kenzers_33 + 1
5: BabyYoda_34
6: SunnyD_33
7: BubbaBear_32
8: Shayna_33
9: Bengal_33
10: Icarian_36
11: Solea_34 + 12
12: AylexOG_34 + 3
13: SanaSana_36
14: AvGardian_35
15: Stoor_34 + 3
16: Coltrane_29 + 7
17: AnnaLie_34 + 3
18: PastaFagioli_32
19: SarBear_32 + 2
20: Alpright_31 + 1
21: Rona_30
22: CanFranMach_34
23: Dodgerdoo_34
24: BAjuniper_31
25: Kamdara_30 + 2
26: Phisb_33 + 1
27: CliffHanger_35
28: PondAmelia_43
29: Finalfrontier_33 + 1
30: Akino08_34 + 1
31: Franklin22_30
32: Quenya_31
33: Kieran_30
34: Arroyo_33
35: Eden_29
36: Katzastrophic_30
37: Lilo27_33
38: Softsoap_32
39: Celaena_30
40: Cashington_31
41: Bachaco_30
42: FlameThrower_30
43: Gack_29
44: Lanqtemish_32
45: SirBeanington_33
46: Teagster_34
47: Dismas_30
48: IndyLu_32 + 1
49: Ezurina_49
50: ChipsNGuac_50 + 6

Pham 311417


51: Mireles_54
52: Agamotto_52
53: Audell_50 + 1
54: TripleC_51
55: TMaxx_53
56: Makima_50
57: Studio_52

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 311417 Report

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

Pham number 311417 has 103 members, 13 are drafts.

Phages represented in each track:
- Track 1 : Sixama_180
- Track 2 : Elva_34
- Track 3 : Nicky22_34, Jovita_33
- Track 4 : Kenzers_33, Lynlen_33
- Track 5 : BabyYoda_34
- Track 6 : SunnyD_33
- Track 7 : BubbaBear_32
- Track 8 : Shayna_33
- Track 9 : Bengal_33
- Track 10 : Icarian_36
- Track 11 : Solea_34, Doobus_32, Abigail_32, SansAfet_33, Eula_33, Milomuff_33, Johnathan_32, QMacho_34, Burritobowl_32, DickRichards_32, LimaBean_32, Pecas_33, Avocadoman_32
- Track 12 : AylexOG_34, Jabb_33, CupcakePrincess_33, MsUbiquitous_33
- Track 13 : SanaSana_36
- Track 14 : AvGardian_35
- Track 15 : Stoor_34, WalkingDead_34, Stromboli_34, DirtyBubble_33
- Track 16 : Coltrane_29, Rollins_29, Skylord_29, Bernstein_29, Brahms_29, Armstrong_29, Clayda5_30, Vitas_29
- Track 17 : AnnaLie_34, BelmontSKP_34, TukTuk_33, Albedo_33
- Track 18 : PastaFagioli_32
- Track 19 : SarBear_32, Slay_33, Swervy_33
- Track 20 : Albright_31, CroZenni_32
- Track 21 : Rona_30
- Track 22 : CanFranMach_34
- Track 23 : Didgeridoo_34
- Track 24 : BAjuniper_31
- Track 25 : Kamdara_30, Sharkboy_31, ChiliPepper_29
- Track 26 : Phisb_33, PhigPhack_33
- Track 27 : CliffHanger_35
- Track 28 : PondAmelia_43
- Track 29 : Finalfrontier_33, Kate33_31
- Track 30 : Akino08_34, Loviatar_35
- Track 31 : Franklin22_30
- Track 32 : Quenya_31
- Track 33 : Kieran_30
- Track 34 : Arroyo_33

• Track 35 : Eden_29
• Track 36 : Katzastrophic_30
• Track 37 : Lilo27_33
• Track 38 : Softsoap_32
• Track 39 : Celaena_30
• Track 40 : Cashington_31
• Track 41 : Bachaco_30
• Track 42 : FlameThrower_30
• Track 43 : Gack_29
• Track 44 : Lahqtemish_32
• Track 45 : SirBeanington_33
• Track 46 : Teagster_34
• Track 47 : Dismas_30
• Track 48 : IndyLu_32, BabyDaisy_32
• Track 49 : Ezurina_49
• Track 50 : ChipsNGuac_50, CardboardBox_50, Neuvillette_49, ChamoyPickle_51, AnnabelLee_51, Roberts_50, Gerri43_49
• Track 51 : Mireles_54
• Track 52 : Agamotto_52
• Track 53 : Audell_50, LastNadiia_51
• Track 54 : TripleC_51
• Track 55 : TMaxx_53
• Track 56 : Makima_50
• Track 57 : Studio_52

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

The start number called the most often in the published annotations is 25, it was called in 75 of the 90 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abigail_32, Akino08_34, Albedo_33, Albright_31, AnnaLie_34, Armstrong_29, Arroyo_33, AvGardian_35, Avocadoman_32, AylexOG_34, BAjuniper_31, BabyDaisy_32, BabyYoda_34, Bachaco_30, BelmontSKP_34, Bengal_33, Bernstein_29, Brahms_29, BubbaBear_32, Burritobowl_32, CanFranMach_34, Cashington_31, Celaena_30, ChiliPepper_29, Clayda5_30, Coltrane_29, CroZenni_32, CupcakePrincess_33, DickRichards_32, Didgeridoo_34, DirtyBubble_33, Dismas_30, Doobus_32, Elva_34, Eula_33, Finalfrontier_33, FlameThrower_30, Franklin22_30, Icarian_36, IndyLu_32, Jabb_33, Johnathan_32, Jovita_33, Kamdara_30, Kate33_31, Katzastrophic_30, Kenzers_33, Kieran_30, Lahqtemish_32, Lilo27_33, LimaBean_32, Loviatar_35, Lynlen_33, Milomuff_33, MsUbiquitous_33, Nicky22_34, PastaFagioli_32, Pecas_33, PhigPhack_33, Phisb_33, PondAmelia_43, QMacho_34, Quenya_31, Rollins_29, Rona_30, SanaSana_36, SansAfet_33, SarBear_32, Sharkboy_31, Shayna_33, SirBeanington_33, Skylord_29, Slay_33, Softsoap_32, Solea_34, Stoor_34, Stromboli_34, SunnyD_33, Swervy_33, Teagster_34, TukTuk_33, Vitas_29, WalkingDead_34,

Genes that have the "Most Annotated" start but do not call it:
• CliffHanger_35,

Genes that do not have the "Most Annotated" start:
• Agamotto_52, AnnabelLee_51, Audell_50, CardboardBox_50, ChamoyPickle_51, ChipsNGuac_50, Eden_29, Ezurina_49, Gack_29, Gerri43_49, LastNadiia_51, Makima_50, Mireles_54, Neuvillette_49, Roberts_50, Sixama_180, Studio_52, TMaxx_53, TripleC_51,

Summary by start number:

Start 23:
• Found in 1 of 103 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 90
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CliffHanger_35 (EB),

Start 24:
• Found in 2 of 103 (1.9%) of genes in pham
• Manual Annotations of this start: 2 of 90
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Eden_29 (EB), Gack_29 (EB),

Start 25:
• Found in 84 of 103 (81.6%) of genes in pham
• Manual Annotations of this start: 75 of 90
• Called 98.8% of time when present
• Phage (with cluster) where this start called: Abigail_32 (EB), Akino08_34 (EB), Albedo_33 (EB), Albright_31 (EB), AnnaLie_34 (EB), Armstrong_29 (EB), Arroyo_33 (EB), AvGardian_35 (EB), Avocadoman_32 (EB), AylexOG_34 (EB), BAjuniper_31 (EB), BabyDaisy_32 (EB), BabyYoda_34 (EB), Bachaco_30 (EB), BelmontSKP_34 (EB), Bengal_33 (EB), Bernstein_29 (EB), Brahms_29 (EB), BubbaBear_32 (EB), Burritobowl_32 (EB), CanFranMach_34 (EB), Cashington_31 (EB), Celaena_30 (EB), ChiliPepper_29 (EB), Clayda5_30 (EB), Coltrane_29 (EB), CroZenni_32 (EB), CupcakePrincess_33 (EB), DickRichards_32 (EB), Didgeridoo_34 (EB), DirtyBubble_33 (EB), Dismas_30 (EB), Doobus_32 (EB), Elva_34 (EB), Eula_33 (EB), Finalfrontier_33 (EB), FlameThrower_30 (EB), Franklin22_30 (EB), Icarian_36 (EB), IndyLu_32 (EB), Jabb_33 (EB), Johnathan_32 (EB), Jovita_33 (EB), Kamdara_30 (EB), Kate33_31 (EB), Katzastrophic_30 (EB), Kenzers_33 (EB), Kieran_30 (EB), Lahqtemish_32 (EB), Lilo27_33 (EB), LimaBean_32 (EB), Loviatar_35 (EB), Lynlen_33 (EB), Milomuff_33 (EB), MsUbiquitous_33 (EB), Nicky22_34 (EB), PastaFagioli_32 (EB), Pecas_33 (EB), PhigPhack_33 (EB), Phisb_33 (EB), PondAmelia_43 (EB), QMacho_34 (EB), Quenya_31 (EB), Rollins_29 (EB), Rona_30 (EB), SanaSana_36 (EB), SansAfet_33 (EB), SarBear_32 (EB), Sharkboy_31 (EB), Shayna_33 (EB), SirBeanington_33 (EB), Skylord_29 (EB), Slay_33 (EB), Softsoap_32 (EB), Solea_34 (EB), Stoor_34 (EB), Stromboli_34 (EB), SunnyD_33 (EB), Swervy_33 (EB), Teagster_34 (EB), TukTuk_33 (EB), Vitas_29 (EB), WalkingDead_34 (EB),

Start 26:
• Found in 16 of 103 (15.5%) of genes in pham
• Manual Annotations of this start: 11 of 90
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Agamotto_52 (FR), AnnabelLee_51 (FR), Audell_50 (FR), CardboardBox_50 (FR), ChamoyPickle_51 (FR),

ChipsNGuac_50 (FR), Ezurina_49 (FR), Gerri43_49 (FR), LastNadiia_51 (FR), Makima_50 (FR), Mireles_54 (FR), Neuvillette_49 (FR), Roberts_50 (FR), Studio_52 (FR), TMaxx_53 (FR), TripleC_51 (FR),

Start 27:
• Found in 1 of 103 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 90
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sixama_180 (DS),

Summary by clusters:

There are 3 clusters represented in this pham: FR, DS, EB,

Info for manual annotations of cluster DS:
•Start number 27 was manually annotated 1 time for cluster DS.

Info for manual annotations of cluster EB:
•Start number 23 was manually annotated 1 time for cluster EB.
•Start number 24 was manually annotated 2 times for cluster EB.
•Start number 25 was manually annotated 75 times for cluster EB.

Info for manual annotations of cluster FR:
•Start number 26 was manually annotated 11 times for cluster FR.

Gene Information:

Gene: Abigail_32 Start: 23161, Stop: 23670, Start Num: 25
Candidate Starts for Abigail_32:
(Start: 25 @23161 has 75 MA's), (37, 23245), (61, 23509),

Gene: Agamotto_52 Start: 35339, Stop: 34827, Start Num: 26
Candidate Starts for Agamotto_52:
(Start: 26 @35339 has 11 MA's), (38, 35243), (45, 35180), (48, 35147),

Gene: Akino08_34 Start: 25518, Stop: 26024, Start Num: 25
Candidate Starts for Akino08_34:
(6, 25161), (8, 25206), (10, 25347), (Start: 25 @25518 has 75 MA's), (37, 25602), (47, 25704), (61, 25866),

Gene: Albedo_33 Start: 23639, Stop: 24145, Start Num: 25
Candidate Starts for Albedo_33:
(Start: 25 @23639 has 75 MA's), (37, 23723), (61, 23987),

Gene: Albright_31 Start: 22800, Stop: 23309, Start Num: 25
Candidate Starts for Albright_31:
(12, 22668), (Start: 25 @22800 has 75 MA's), (37, 22884), (61, 23148),

Gene: AnnaLie_34 Start: 23922, Stop: 24428, Start Num: 25
Candidate Starts for AnnaLie_34:
(Start: 25 @23922 has 75 MA's), (37, 24006), (61, 24270),

Gene: AnnabelLee_51 Start: 32285, Stop: 31773, Start Num: 26
Candidate Starts for AnnabelLee_51:
(Start: 26 @32285 has 11 MA's), (45, 32126), (48, 32093), (58, 31964),

Gene: Armstrong_29 Start: 21497, Stop: 22009, Start Num: 25
Candidate Starts for Armstrong_29:
(Start: 25 @21497 has 75 MA's), (33, 21569), (36, 21578), (40, 21602), (42, 21611), (61, 21848), (68, 21923),

Gene: Arroyo_33 Start: 23938, Stop: 24447, Start Num: 25
Candidate Starts for Arroyo_33:
(16, 23875), (Start: 25 @23938 has 75 MA's), (37, 24022), (61, 24286),

Gene: Audell_50 Start: 34887, Stop: 34360, Start Num: 26
Candidate Starts for Audell_50:
(Start: 26 @34887 has 11 MA's), (48, 34695), (52, 34656), (67, 34479),

Gene: AvGardian_35 Start: 24185, Stop: 24688, Start Num: 25
Candidate Starts for AvGardian_35:
(6, 23792), (8, 23837), (10, 23978), (13, 24020), (Start: 25 @24185 has 75 MA's), (53, 24431), (61, 24530), (64, 24548),

Gene: Avocadoman_32 Start: 23103, Stop: 23609, Start Num: 25
Candidate Starts for Avocadoman_32:
(Start: 25 @23103 has 75 MA's), (37, 23187), (61, 23451),

Gene: AylexOG_34 Start: 23986, Stop: 24492, Start Num: 25
Candidate Starts for AylexOG_34:
(10, 23815), (Start: 25 @23986 has 75 MA's), (37, 24070), (61, 24334),

Gene: BAjuniper_31 Start: 24389, Stop: 24874, Start Num: 25
Candidate Starts for BAjuniper_31:
(18, 24335), (Start: 25 @24389 has 75 MA's), (29, 24410), (30, 24413), (33, 24458), (68, 24791),

Gene: BabyDaisy_32 Start: 23550, Stop: 24065, Start Num: 25
Candidate Starts for BabyDaisy_32:
(6, 23190), (10, 23376), (Start: 25 @23550 has 75 MA's), (32, 23622), (35, 23631), (61, 23904),

Gene: BabyYoda_34 Start: 24663, Stop: 25178, Start Num: 25
Candidate Starts for BabyYoda_34:
(Start: 25 @24663 has 75 MA's), (33, 24738), (34, 24741), (37, 24756), (61, 25020), (66, 25053),

Gene: Bachaco_30 Start: 24605, Stop: 25111, Start Num: 25
Candidate Starts for Bachaco_30:
(3, 24041), (5, 24188), (10, 24437), (13, 24479), (Start: 25 @24605 has 75 MA's), (31, 24662), (33, 24671), (60, 24938), (61, 24950), (68, 25025),

Gene: BelmontSKP_34 Start: 23922, Stop: 24428, Start Num: 25
Candidate Starts for BelmontSKP_34:
(Start: 25 @23922 has 75 MA's), (37, 24006), (61, 24270),

Gene: Bengal_33 Start: 23550, Stop: 24059, Start Num: 25

Candidate Starts for Bengal_33:
(Start: 25 @23550 has 75 MA's), (37, 23634), (61, 23898),

Gene: Bernstein_29 Start: 21552, Stop: 22064, Start Num: 25
Candidate Starts for Bernstein_29:
(Start: 25 @21552 has 75 MA's), (33, 21624), (36, 21633), (40, 21657), (42, 21666), (61, 21903), (68, 21978),

Gene: Brahms_29 Start: 21499, Stop: 22011, Start Num: 25
Candidate Starts for Brahms_29:
(Start: 25 @21499 has 75 MA's), (33, 21571), (36, 21580), (40, 21604), (42, 21613), (61, 21850), (68, 21925),

Gene: BubbaBear_32 Start: 23491, Stop: 24003, Start Num: 25
Candidate Starts for BubbaBear_32:
(13, 23365), (Start: 25 @23491 has 75 MA's), (33, 23560), (61, 23842),

Gene: Burritobowl_32 Start: 23495, Stop: 24004, Start Num: 25
Candidate Starts for Burritobowl_32:
(Start: 25 @23495 has 75 MA's), (37, 23579), (61, 23843),

Gene: CanFranMach_34 Start: 23661, Stop: 24176, Start Num: 25
Candidate Starts for CanFranMach_34:
(10, 23487), (Start: 25 @23661 has 75 MA's), (32, 23733), (61, 24015),

Gene: CardboardBox_50 Start: 32288, Stop: 31776, Start Num: 26
Candidate Starts for CardboardBox_50:
(Start: 26 @32288 has 11 MA's), (45, 32129), (48, 32096), (58, 31967),

Gene: Cashington_31 Start: 22838, Stop: 23350, Start Num: 25
Candidate Starts for Cashington_31:
(Start: 25 @22838 has 75 MA's), (33, 22907), (61, 23189),

Gene: Celaena_30 Start: 24287, Stop: 24793, Start Num: 25
Candidate Starts for Celaena_30:
(5, 23870), (6, 23933), (10, 24119), (Start: 25 @24287 has 75 MA's), (31, 24344), (33, 24353), (60, 24620), (61, 24632), (68, 24707),

Gene: ChamoyPickle_51 Start: 32828, Stop: 32316, Start Num: 26
Candidate Starts for ChamoyPickle_51:
(Start: 26 @32828 has 11 MA's), (45, 32669), (48, 32636), (58, 32507),

Gene: ChiliPepper_29 Start: 23783, Stop: 24289, Start Num: 25
Candidate Starts for ChiliPepper_29:
(Start: 25 @23783 has 75 MA's), (33, 23849), (40, 23882), (55, 24062), (61, 24128), (62, 24131), (63, 24140), (68, 24203),

Gene: ChipsNGuac_50 Start: 32288, Stop: 31776, Start Num: 26
Candidate Starts for ChipsNGuac_50:
(Start: 26 @32288 has 11 MA's), (45, 32129), (48, 32096), (58, 31967),

Gene: Clayda5_30 Start: 21486, Stop: 21998, Start Num: 25
Candidate Starts for Clayda5_30:

(Start: 25 @21486 has 75 MA's), (33, 21558), (36, 21567), (40, 21591), (42, 21600), (61, 21837), (68, 21912),

Gene: CliffHanger_35 Start: 22984, Stop: 23460, Start Num: 23
Candidate Starts for CliffHanger_35:
(Start: 23 @22984 has 1 MA's), (Start: 25 @22996 has 75 MA's), (39, 23083), (50, 23194), (59, 23308), (61, 23323), (66, 23356),

Gene: Coltrane_29 Start: 21499, Stop: 22011, Start Num: 25
Candidate Starts for Coltrane_29:
(Start: 25 @21499 has 75 MA's), (33, 21571), (36, 21580), (40, 21604), (42, 21613), (61, 21850), (68, 21925),

Gene: CroZenni_32 Start: 23384, Stop: 23893, Start Num: 25
Candidate Starts for CroZenni_32:
(12, 23252), (Start: 25 @23384 has 75 MA's), (37, 23468), (61, 23732),

Gene: CupcakePrincess_33 Start: 23673, Stop: 24179, Start Num: 25
Candidate Starts for CupcakePrincess_33:
(10, 23502), (Start: 25 @23673 has 75 MA's), (37, 23757), (61, 24021),

Gene: DickRichards_32 Start: 23824, Stop: 24333, Start Num: 25
Candidate Starts for DickRichards_32:
(Start: 25 @23824 has 75 MA's), (37, 23908), (61, 24172),

Gene: Didgeridoo_34 Start: 23947, Stop: 24462, Start Num: 25
Candidate Starts for Didgeridoo_34:
(5, 23479), (6, 23542), (10, 23728), (Start: 25 @23947 has 75 MA's), (32, 24019), (35, 24028), (61, 24301),

Gene: DirtyBubble_33 Start: 24347, Stop: 24853, Start Num: 25
Candidate Starts for DirtyBubble_33:
(8, 24035), (10, 24176), (Start: 25 @24347 has 75 MA's), (37, 24431), (61, 24695),

Gene: Dismas_30 Start: 23954, Stop: 24460, Start Num: 25
Candidate Starts for Dismas_30:
(Start: 25 @23954 has 75 MA's), (31, 24011), (33, 24020), (40, 24053), (55, 24233), (61, 24299), (62, 24302), (63, 24311), (64, 24317), (68, 24374),

Gene: Doobus_32 Start: 23270, Stop: 23776, Start Num: 25
Candidate Starts for Doobus_32:
(Start: 25 @23270 has 75 MA's), (37, 23354), (61, 23618),

Gene: Eden_29 Start: 21679, Stop: 22194, Start Num: 24
Candidate Starts for Eden_29:
(Start: 24 @21679 has 2 MA's), (68, 22108),

Gene: Elva_34 Start: 24367, Stop: 24873, Start Num: 25
Candidate Starts for Elva_34:
(6, 23974), (8, 24019), (10, 24160), (13, 24202), (17, 24253), (Start: 25 @24367 has 75 MA's), (32, 24433), (61, 24715), (66, 24748),

Gene: Eula_33 Start: 23586, Stop: 24092, Start Num: 25

Candidate Starts for Eula_33:
(Start: 25 @23586 has 75 MA's), (37, 23670), (61, 23934),

Gene: Ezurina_49 Start: 33255, Stop: 32743, Start Num: 26
Candidate Starts for Ezurina_49:
(20, 33333), (Start: 26 @33255 has 11 MA's), (38, 33159), (45, 33096), (48, 33063), (52, 33024), (58, 32934),

Gene: Finalfrontier_33 Start: 24197, Stop: 24712, Start Num: 25
Candidate Starts for Finalfrontier_33:
(Start: 25 @24197 has 75 MA's), (32, 24269), (35, 24278), (61, 24551),

Gene: FlameThrower_30 Start: 23779, Stop: 24285, Start Num: 25
Candidate Starts for FlameThrower_30:
(10, 23611), (13, 23653), (Start: 25 @23779 has 75 MA's), (31, 23836), (33, 23845), (60, 24112), (61, 24124), (68, 24199),

Gene: Franklin22_30 Start: 21844, Stop: 22353, Start Num: 25
Candidate Starts for Franklin22_30:
(10, 21700), (13, 21742), (Start: 25 @21844 has 75 MA's), (31, 21904), (33, 21913), (54, 22105), (61, 22192),

Gene: Gack_29 Start: 21723, Stop: 22238, Start Num: 24
Candidate Starts for Gack_29:
(Start: 24 @21723 has 2 MA's), (54, 21990), (56, 22026), (61, 22077),

Gene: Gerri43_49 Start: 32288, Stop: 31776, Start Num: 26
Candidate Starts for Gerri43_49:
(Start: 26 @32288 has 11 MA's), (45, 32129), (48, 32096), (58, 31967),

Gene: Icarian_36 Start: 24981, Stop: 25487, Start Num: 25
Candidate Starts for Icarian_36:
(8, 24669), (10, 24810), (Start: 25 @24981 has 75 MA's), (37, 25065), (61, 25329),

Gene: IndyLu_32 Start: 23511, Stop: 24026, Start Num: 25
Candidate Starts for IndyLu_32:
(6, 23151), (10, 23337), (Start: 25 @23511 has 75 MA's), (32, 23583), (35, 23592), (61, 23865),

Gene: Jabb_33 Start: 23673, Stop: 24179, Start Num: 25
Candidate Starts for Jabb_33:
(10, 23502), (Start: 25 @23673 has 75 MA's), (37, 23757), (61, 24021),

Gene: Johnathan_32 Start: 23043, Stop: 23552, Start Num: 25
Candidate Starts for Johnathan_32:
(Start: 25 @23043 has 75 MA's), (37, 23127), (61, 23391),

Gene: Jovita_33 Start: 23689, Stop: 24195, Start Num: 25
Candidate Starts for Jovita_33:
(4, 23239), (7, 23377), (Start: 25 @23689 has 75 MA's), (37, 23773), (61, 24037),

Gene: Kamdara_30 Start: 23959, Stop: 24465, Start Num: 25
Candidate Starts for Kamdara_30:

(Start: 25 @23959 has 75 MA's), (33, 24025), (40, 24058), (55, 24238), (61, 24304), (62, 24307), (63, 24316), (68, 24379),

Gene: Kate33_31 Start: 23304, Stop: 23819, Start Num: 25
Candidate Starts for Kate33_31:
(Start: 25 @23304 has 75 MA's), (32, 23376), (35, 23385), (61, 23658),

Gene: Katzastrophic_30 Start: 23897, Stop: 24403, Start Num: 25
Candidate Starts for Katzastrophic_30:
(10, 23729), (13, 23771), (Start: 25 @23897 has 75 MA's), (31, 23954), (33, 23963), (60, 24230), (61, 24242), (68, 24317),

Gene: Kenzers_33 Start: 23636, Stop: 24142, Start Num: 25
Candidate Starts for Kenzers_33:
(6, 23228), (8, 23273), (10, 23414), (13, 23456), (Start: 25 @23636 has 75 MA's), (37, 23720), (61, 23984),

Gene: Kieran_30 Start: 23963, Stop: 24469, Start Num: 25
Candidate Starts for Kieran_30:
(Start: 25 @23963 has 75 MA's), (33, 24029), (40, 24062), (55, 24242), (61, 24308), (62, 24311), (63, 24320), (64, 24326), (68, 24383),

Gene: Lahqtemish_32 Start: 23544, Stop: 24059, Start Num: 25
Candidate Starts for Lahqtemish_32:
(Start: 25 @23544 has 75 MA's), (32, 23616), (61, 23898),

Gene: LastNadiia_51 Start: 34509, Stop: 33997, Start Num: 26
Candidate Starts for LastNadiia_51:
(Start: 26 @34509 has 11 MA's), (48, 34317), (52, 34278), (67, 34101),

Gene: Lilo27_33 Start: 23497, Stop: 24003, Start Num: 25
Candidate Starts for Lilo27_33:
(4, 23047), (Start: 25 @23497 has 75 MA's), (37, 23581), (61, 23845),

Gene: LimaBean_32 Start: 23039, Stop: 23548, Start Num: 25
Candidate Starts for LimaBean_32:
(Start: 25 @23039 has 75 MA's), (37, 23123), (61, 23387),

Gene: Loviatar_35 Start: 25533, Stop: 26039, Start Num: 25
Candidate Starts for Loviatar_35:
(6, 25176), (8, 25221), (10, 25362), (Start: 25 @25533 has 75 MA's), (37, 25617), (47, 25719), (61, 25881),

Gene: Lynlen_33 Start: 23636, Stop: 24142, Start Num: 25
Candidate Starts for Lynlen_33:
(6, 23228), (8, 23273), (10, 23414), (13, 23456), (Start: 25 @23636 has 75 MA's), (37, 23720), (61, 23984),

Gene: Makima_50 Start: 34127, Stop: 33597, Start Num: 26
Candidate Starts for Makima_50:
(21, 34202), (22, 34187), (Start: 26 @34127 has 11 MA's), (32, 34064), (48, 33935), (58, 33806),

Gene: Milomuff_33 Start: 23404, Stop: 23913, Start Num: 25

Candidate Starts for Milomuff_33:
(Start: 25 @23404 has 75 MA's), (37, 23488), (61, 23752),

Gene: Mireles_54 Start: 33784, Stop: 33254, Start Num: 26
Candidate Starts for Mireles_54:
(Start: 26 @33784 has 11 MA's), (32, 33721), (48, 33592), (57, 33466), (58, 33463),

Gene: MsUbiquitous_33 Start: 23673, Stop: 24179, Start Num: 25
Candidate Starts for MsUbiquitous_33:
(10, 23502), (Start: 25 @23673 has 75 MA's), (37, 23757), (61, 24021),

Gene: Neuvillette_49 Start: 32288, Stop: 31776, Start Num: 26
Candidate Starts for Neuvillette_49:
(Start: 26 @32288 has 11 MA's), (45, 32129), (48, 32096), (58, 31967),

Gene: Nicky22_34 Start: 24051, Stop: 24557, Start Num: 25
Candidate Starts for Nicky22_34:
(4, 23601), (7, 23739), (Start: 25 @24051 has 75 MA's), (37, 24135), (61, 24399),

Gene: PastaFagioli_32 Start: 23529, Stop: 24044, Start Num: 25
Candidate Starts for PastaFagioli_32:
(10, 23355), (11, 23364), (17, 23451), (Start: 25 @23529 has 75 MA's), (32, 23601), (35, 23610), (61, 23883),

Gene: Pecas_33 Start: 23586, Stop: 24092, Start Num: 25
Candidate Starts for Pecas_33:
(Start: 25 @23586 has 75 MA's), (37, 23670), (61, 23934),

Gene: PhigPhack_33 Start: 23406, Stop: 23912, Start Num: 25
Candidate Starts for PhigPhack_33:
(Start: 25 @23406 has 75 MA's), (33, 23472), (61, 23754),

Gene: Phisb_33 Start: 23642, Stop: 24127, Start Num: 25
Candidate Starts for Phisb_33:
(Start: 25 @23642 has 75 MA's), (33, 23708), (61, 23990),

Gene: PondAmelia_43 Start: 24532, Stop: 25038, Start Num: 25
Candidate Starts for PondAmelia_43:
(Start: 25 @24532 has 75 MA's), (33, 24598), (37, 24616), (61, 24880),

Gene: QMacho_34 Start: 24069, Stop: 24575, Start Num: 25
Candidate Starts for QMacho_34:
(Start: 25 @24069 has 75 MA's), (37, 24153), (61, 24417),

Gene: Quenya_31 Start: 23759, Stop: 24265, Start Num: 25
Candidate Starts for Quenya_31:
(9, 23576), (13, 23651), (Start: 25 @23759 has 75 MA's), (31, 23816), (32, 23825), (42, 23867), (60, 24092), (61, 24104), (68, 24179),

Gene: Roberts_50 Start: 32288, Stop: 31776, Start Num: 26
Candidate Starts for Roberts_50:
(Start: 26 @32288 has 11 MA's), (45, 32129), (48, 32096), (58, 31967),

Gene: Rollins_29 Start: 21552, Stop: 22064, Start Num: 25
Candidate Starts for Rollins_29:
(Start: 25 @21552 has 75 MA's), (33, 21624), (36, 21633), (40, 21657), (42, 21666), (61, 21903), (68, 21978),

Gene: Rona_30 Start: 23945, Stop: 24451, Start Num: 25
Candidate Starts for Rona_30:
(1, 23339), (2, 23351), (3, 23381), (5, 23528), (6, 23591), (10, 23777), (Start: 25 @23945 has 75 MA's), (33, 24011), (40, 24044), (55, 24224), (61, 24290), (62, 24293), (63, 24302), (68, 24365),

Gene: SanaSana_36 Start: 25183, Stop: 25689, Start Num: 25
Candidate Starts for SanaSana_36:
(6, 24826), (8, 24871), (10, 25012), (Start: 25 @25183 has 75 MA's), (37, 25267), (61, 25531),

Gene: SansAfet_33 Start: 23511, Stop: 24017, Start Num: 25
Candidate Starts for SansAfet_33:
(Start: 25 @23511 has 75 MA's), (37, 23595), (61, 23859),

Gene: SarBear_32 Start: 23399, Stop: 23905, Start Num: 25
Candidate Starts for SarBear_32:
(13, 23288), (17, 23342), (Start: 25 @23399 has 75 MA's), (37, 23483), (61, 23747),

Gene: Sharkboy_31 Start: 24044, Stop: 24550, Start Num: 25
Candidate Starts for Sharkboy_31:
(Start: 25 @24044 has 75 MA's), (33, 24110), (40, 24143), (55, 24323), (61, 24389), (62, 24392), (63, 24401), (68, 24464),

Gene: Shayna_33 Start: 23250, Stop: 23720, Start Num: 25
Candidate Starts for Shayna_33:
(15, 23106), (Start: 25 @23250 has 75 MA's), (28, 23265), (49, 23445), (61, 23580), (65, 23604), (66, 23613),

Gene: SirBeanington_33 Start: 23686, Stop: 24192, Start Num: 25
Candidate Starts for SirBeanington_33:
(Start: 25 @23686 has 75 MA's), (37, 23770), (61, 24034),

Gene: Sixama_180 Start: 104187, Stop: 103591, Start Num: 27
Candidate Starts for Sixama_180:
(Start: 27 @104187 has 1 MA's), (41, 104088), (43, 104049), (46, 104010), (49, 103965), (51, 103956),

Gene: Skylord_29 Start: 21483, Stop: 21995, Start Num: 25
Candidate Starts for Skylord_29:
(Start: 25 @21483 has 75 MA's), (33, 21555), (36, 21564), (40, 21588), (42, 21597), (61, 21834), (68, 21909),

Gene: Slay_33 Start: 24047, Stop: 24553, Start Num: 25
Candidate Starts for Slay_33:
(13, 23936), (17, 23990), (Start: 25 @24047 has 75 MA's), (37, 24131), (61, 24395),

Gene: Softsoap_32 Start: 23397, Stop: 23906, Start Num: 25
Candidate Starts for Softsoap_32:
(Start: 25 @23397 has 75 MA's), (37, 23481), (61, 23745),

Gene: Solea_34 Start: 23404, Stop: 23913, Start Num: 25
Candidate Starts for Solea_34:
(Start: 25 @23404 has 75 MA's), (37, 23488), (61, 23752),

Gene: Stoor_34 Start: 24851, Stop: 25357, Start Num: 25
Candidate Starts for Stoor_34:
(8, 24539), (10, 24680), (Start: 25 @24851 has 75 MA's), (37, 24935), (61, 25199),

Gene: Stromboli_34 Start: 24717, Stop: 25223, Start Num: 25
Candidate Starts for Stromboli_34:
(8, 24405), (10, 24546), (Start: 25 @24717 has 75 MA's), (37, 24801), (61, 25065),

Gene: Studio_52 Start: 33495, Stop: 32983, Start Num: 26
Candidate Starts for Studio_52:
(20, 33573), (Start: 26 @33495 has 11 MA's), (38, 33399), (40, 33393), (44, 33339), (45, 33336), (48, 33303), (58, 33174),

Gene: SunnyD_33 Start: 23253, Stop: 23723, Start Num: 25
Candidate Starts for SunnyD_33:
(19, 23178), (Start: 25 @23253 has 75 MA's), (28, 23268), (49, 23448), (61, 23583), (66, 23616),

Gene: Swervy_33 Start: 23566, Stop: 24072, Start Num: 25
Candidate Starts for Swervy_33:
(13, 23455), (17, 23509), (Start: 25 @23566 has 75 MA's), (37, 23650), (61, 23914),

Gene: TMaxx_53 Start: 33429, Stop: 32917, Start Num: 26
Candidate Starts for TMaxx_53:
(Start: 26 @33429 has 11 MA's), (48, 33237), (69, 32994),

Gene: Teagster_34 Start: 24083, Stop: 24553, Start Num: 25
Candidate Starts for Teagster_34:
(14, 23927), (Start: 25 @24083 has 75 MA's), (28, 24098), (34, 24152), (49, 24278), (61, 24413), (65, 24437), (66, 24446), (70, 24521),

Gene: TripleC_51 Start: 35493, Stop: 34981, Start Num: 26
Candidate Starts for TripleC_51:
(Start: 26 @35493 has 11 MA's), (38, 35397), (48, 35301),

Gene: TukTuk_33 Start: 23637, Stop: 24143, Start Num: 25
Candidate Starts for TukTuk_33:
(Start: 25 @23637 has 75 MA's), (37, 23721), (61, 23985),

Gene: Vitas_29 Start: 21492, Stop: 22004, Start Num: 25
Candidate Starts for Vitas_29:
(Start: 25 @21492 has 75 MA's), (33, 21564), (36, 21573), (40, 21597), (42, 21606), (61, 21843), (68, 21918),

Gene: WalkingDead_34 Start: 24957, Stop: 25463, Start Num: 25
Candidate Starts for WalkingDead_34:
(8, 24645), (10, 24786), (Start: 25 @24957 has 75 MA's), (37, 25041), (61, 25305),