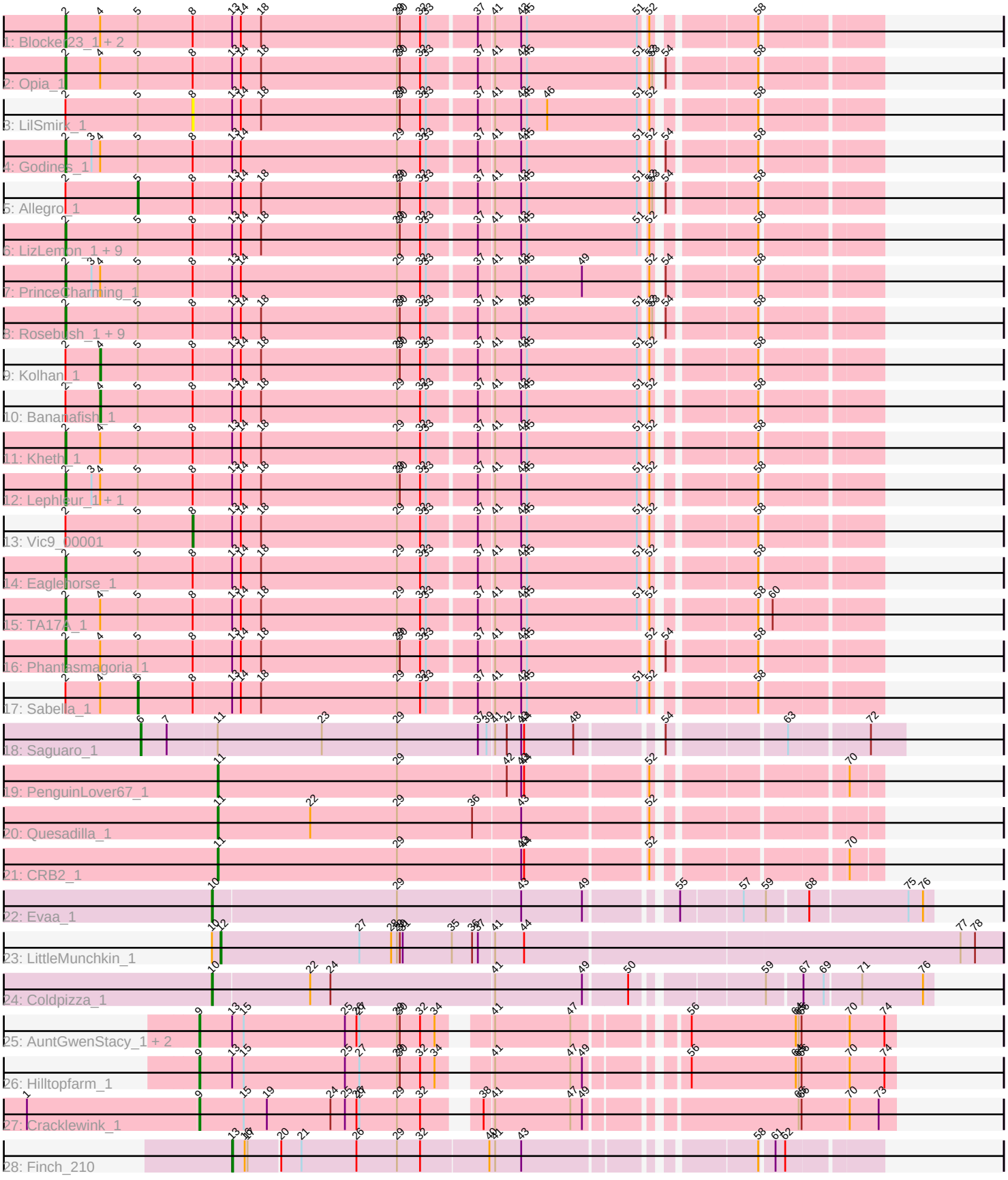
Pham 294813


1: Blocker23_1 + 2
2: Opia_1
3: LilSmirk_1
4: Godines_1
5: Allegro_1
6: LizLemon_1 + 9
7: PrinceCharming_1
8: Rosebush_1 + 9
9: Kolhan_1
10: Bananafish_1
11: Kheth_1
12: Lephleur_1 + 1
13: Vic9_00001
14: Eaglehorse_1
15: TA17A_1
16: Phantasmagoria_1
17: Sabella_1
18: Saguaro_1
19: PenguinLover67_1
20: Quesadilla_1
21: CRB2_1
22: Evaa_1
23: LittleMunchkin_1
24: Coldpizza_1
25: AuntGwenStacy_1 + 2
26: Hilltopfarm_1
27: Cracklewink_1
28: Finch_210

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 294813 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294813 has 51 members, 2 are drafts.

Phages represented in each track:
• Track 1 : Blocker23_1, Tres_1, Laurie_1
• Track 2 : Opia_1
• Track 3 : LilSmirk_1
• Track 4 : Godines_1
• Track 5 : Allegro_1
• Track 6 : LizLemon_1, Ares_1, Calamitous_1, Lars_1, ItsyBitsy1_1, Qyrzula_1, Arbiter_1, Holeinone_1, Rhinoforte_1, Glass_1
• Track 7 : PrinceCharming_1
• Track 8 : Rosebush_1, Hedgerow_1, Boyle_1, FrenchFry_1, Coffee_1, Tinciduntsolum_1, Faze9_1, Brownie5_1, Kaleb_1, West99_1
• Track 9 : Kolhan_1
• Track 10 : Bananafish_1
• Track 11 : Kheth_1
• Track 12 : Lephleur_1, MasterPo_1
• Track 13 : Vic9_00001
• Track 14 : Eaglehorse_1
• Track 15 : TA17A_1
• Track 16 : Phantasmagoria_1
• Track 17 : Sabella_1
• Track 18 : Saguaro_1
• Track 19 : PenguinLover67_1
• Track 20 : Quesadilla_1
• Track 21 : CRB2_1
• Track 22 : Evaa_1
• Track 23 : LittleMunchkin_1
• Track 24 : Coldpizza_1
• Track 25 : AuntGwenStacy_1, Faiyaz_1, Typha_1
• Track 26 : Hilltopfarm_1
• Track 27 : Cracklewink_1
• Track 28 : Finch_210

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

The start number called the most often in the published annotations is 2, it was called in 32 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arbiter_1, Ares_1, Blocker23_1, Boyle_1, Brownie5_1, Calamitous_1, Coffee_1, Eaglehorse_1, Faze9_1, FrenchFry_1, Glass_1, Godines_1, Hedgerow_1, Holeinone_1, ItsyBitsy1_1, Kaleb_1, Kheth_1, Lars_1, Laurie_1, Lephleur_1, LizLemon_1, MasterPo_1, Opia_1, Phantasmagoria_1, PrinceCharming_1, Qyrzula_1, Rhinoforte_1, Rosebush_1, TA17A_1, Tinciduntsolum_1, Tres_1, West99_1,

Genes that have the "Most Annotated" start but do not call it:
• Allegro_1, Bananafish_1, Kolhan_1, LilSmirk_1, Sabella_1, Vic9_00001,

Genes that do not have the "Most Annotated" start:
• AuntGwenStacy_1, CRB2_1, Coldpizza_1, Cracklewink_1, Evaa_1, Faiyaz_1, Finch_210, Hilltopfarm_1, LittleMunchkin_1, PenguinLover67_1, Quesadilla_1, Saguaro_1, Typha_1,

Summary by start number:

Start 2:
• Found in 38 of 51 (74.5%) of genes in pham
• Manual Annotations of this start: 32 of 49
• Called 84.2% of time when present
• Phage (with cluster) where this start called: Arbiter_1 (B2), Ares_1 (B2), Blocker23_1 (B2), Boyle_1 (B2), Brownie5_1 (B2), Calamitous_1 (B2), Coffee_1 (B2), Eaglehorse_1 (B2), Faze9_1 (B2), FrenchFry_1 (B2), Glass_1 (B2), Godines_1 (B2), Hedgerow_1 (B2), Holeinone_1 (B2), ItsyBitsy1_1 (B2), Kaleb_1 (B2), Kheth_1 (B2), Lars_1 (B2), Laurie_1 (B2), Lephleur_1 (B2), LizLemon_1 (B2), MasterPo_1 (B2), Opia_1 (B2), Phantasmagoria_1 (B2), PrinceCharming_1 (B2), Qyrzula_1 (B2), Rhinoforte_1 (B2), Rosebush_1 (B2), TA17A_1 (B2), Tinciduntsolum_1 (B2), Tres_1 (B2), West99_1 (B2),

Start 4:
• Found in 14 of 51 (27.5%) of genes in pham
• Manual Annotations of this start: 2 of 49
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Bananafish_1 (B2), Kolhan_1 (B2),

Start 5:
• Found in 38 of 51 (74.5%) of genes in pham
• Manual Annotations of this start: 2 of 49
• Called 5.3% of time when present
• Phage (with cluster) where this start called: Allegro_1 (B2), Sabella_1 (B2),

Start 6:
• Found in 1 of 51 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 49
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Saguaro_1 (B7),

Start 8:

• Found in 38 of 51 (74.5%) of genes in pham
• Manual Annotations of this start: 1 of 49
• Called 5.3% of time when present
• Phage (with cluster) where this start called: LilSmirk_1 (B2), Vic9_00001 (B2),

Start 9:
• Found in 5 of 51 (9.8%) of genes in pham
• Manual Annotations of this start: 4 of 49
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AuntGwenStacy_1 (Y), Cracklewink_1 (Y), Faiyaz_1 (Y), Hilltopfarm_1 (Y), Typha_1 (Y),

Start 10:
• Found in 3 of 51 (5.9%) of genes in pham
• Manual Annotations of this start: 2 of 49
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Coldpizza_1 (DR), Evaa_1 (DR),

Start 11:
• Found in 4 of 51 (7.8%) of genes in pham
• Manual Annotations of this start: 3 of 49
• Called 75.0% of time when present
• Phage (with cluster) where this start called: CRB2_1 (B9), PenguinLover67_1 (B9), Quesadilla_1 (B9),

Start 12:
• Found in 1 of 51 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 49
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LittleMunchkin_1 (DR),

Start 13:
• Found in 43 of 51 (84.3%) of genes in pham
• Manual Annotations of this start: 1 of 49
• Called 2.3% of time when present
• Phage (with cluster) where this start called: Finch_210 (singleton),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, B7, B2, Y, DR, B9,

Info for manual annotations of cluster B2:
•Start number 2 was manually annotated 32 times for cluster B2.
•Start number 4 was manually annotated 2 times for cluster B2.
•Start number 5 was manually annotated 2 times for cluster B2.
•Start number 8 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster B7:
•Start number 6 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:
•Start number 11 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster DR:
•Start number 10 was manually annotated 2 times for cluster DR.
•Start number 12 was manually annotated 1 time for cluster DR.

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

Gene Information:

Gene: Allegro_1 Start: 76, Stop: 792, Start Num: 5
Candidate Starts for Allegro_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Arbiter_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Arbiter_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Ares_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Ares_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: AuntGwenStacy_1 Start: 202, Stop: 861, Start Num: 9
Candidate Starts for AuntGwenStacy_1:
(Start: 9 @202 has 4 MA's), (Start: 13 @235 has 1 MA's), (15, 247), (25, 352), (26, 364), (27, 367), (29, 406), (30, 409), (32, 430), (34, 445), (41, 481), (47, 559), (56, 652), (64, 760), (65, 763), (66, 766), (70, 814), (74, 850),

Gene: Bananafish_1 Start: 37, Stop: 792, Start Num: 4
Candidate Starts for Bananafish_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Blocker23_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Blocker23_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Boyle_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Boyle_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Brownie5_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Brownie5_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: CRB2_1 Start: 1, Stop: 633, Start Num: 11
Candidate Starts for CRB2_1:
(Start: 11 @1 has 3 MA's), (29, 187), (43, 313), (44, 316), (52, 433), (70, 601),

Gene: Calamitous_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Calamitous_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Coffee_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Coffee_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Coldpizza_1 Start: 1, Stop: 699, Start Num: 10
Candidate Starts for Coldpizza_1:
(Start: 10 @1 has 2 MA's), (22, 100), (24, 121), (41, 289), (49, 379), (50, 421), (59, 538), (67, 571), (69, 592), (71, 628), (76, 691),

Gene: Cracklewink_1 Start: 202, Stop: 861, Start Num: 9
Candidate Starts for Cracklewink_1:
(1, 25), (Start: 9 @202 has 4 MA's), (15, 247), (19, 271), (24, 337), (25, 352), (26, 364), (27, 367), (29, 406), (32, 430), (38, 472), (41, 481), (47, 559), (49, 571), (65, 763), (66, 766), (70, 814), (73, 844),

Gene: Eaglehorse_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Eaglehorse_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Evaa_1 Start: 1, Stop: 699, Start Num: 10
Candidate Starts for Evaa_1:
(Start: 10 @1 has 2 MA's), (29, 190), (43, 316), (49, 379), (55, 457), (57, 517), (59, 538), (68, 577), (75, 676), (76, 691),

Gene: Faiyaz_1 Start: 202, Stop: 861, Start Num: 9
Candidate Starts for Faiyaz_1:
(Start: 9 @202 has 4 MA's), (Start: 13 @235 has 1 MA's), (15, 247), (25, 352), (26, 364), (27, 367), (29, 406), (30, 409), (32, 430), (34, 445), (41, 481), (47, 559), (56, 652), (64, 760), (65, 763), (66, 766), (70, 814), (74, 850),

Gene: Faze9_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Faze9_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463),

(45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Finch_210 Start: 122277, Stop: 122888, Start Num: 13
Candidate Starts for Finch_210:
(Start: 13 @122277 has 1 MA's), (16, 122289), (17, 122292), (20, 122322), (21, 122343), (26, 122400), (29, 122442), (32, 122466), (40, 122535), (41, 122541), (43, 122568), (58, 122775), (61, 122787), (62, 122796),

Gene: FrenchFry_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for FrenchFry_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Glass_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Glass_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Godines_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Godines_1:
(Start: 2 @1 has 32 MA's), (3, 28), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (54, 595), (58, 679),

Gene: Hedgerow_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Hedgerow_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Hilltopfarm_1 Start: 202, Stop: 861, Start Num: 9
Candidate Starts for Hilltopfarm_1:
(Start: 9 @202 has 4 MA's), (Start: 13 @235 has 1 MA's), (15, 247), (25, 352), (27, 367), (29, 406), (30, 409), (32, 430), (34, 445), (41, 481), (47, 559), (49, 571), (56, 652), (64, 760), (65, 763), (66, 766), (70, 814), (74, 850),

Gene: Holeinone_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Holeinone_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: ItsyBitsy1_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for ItsyBitsy1_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Kaleb_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Kaleb_1:

(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Kheth_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Kheth_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Kolhan_1 Start: 37, Stop: 792, Start Num: 4
Candidate Starts for Kolhan_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Lars_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Lars_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Laurie_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Laurie_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Lephleur_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Lephleur_1:
(Start: 2 @1 has 32 MA's), (3, 28), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: LilSmirk_1 Start: 133, Stop: 792, Start Num: 8
Candidate Starts for LilSmirk_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (46, 490), (51, 583), (52, 589), (58, 679),

Gene: LittleMunchkin_1 Start: 10, Stop: 807, Start Num: 12
Candidate Starts for LittleMunchkin_1:
(Start: 10 @1 has 2 MA's), (Start: 12 @10 has 1 MA's), (27, 154), (28, 187), (29, 193), (30, 196), (31, 199), (35, 250), (36, 271), (37, 277), (41, 292), (44, 322), (77, 763), (78, 778),

Gene: LizLemon_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for LizLemon_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: MasterPo_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for MasterPo_1:

(Start: 2 @1 has 32 MA's), (3, 28), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Opia_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Opia_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: PenguinLover67_1 Start: 1, Stop: 633, Start Num: 11
Candidate Starts for PenguinLover67_1:
(Start: 11 @1 has 3 MA's), (29, 187), (42, 298), (43, 313), (44, 316), (52, 433), (70, 601),

Gene: Phantasmagoria_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Phantasmagoria_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (52, 589), (54, 595), (58, 679),

Gene: PrinceCharming_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for PrinceCharming_1:
(Start: 2 @1 has 32 MA's), (3, 28), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (49, 526), (52, 589), (54, 595), (58, 679),

Gene: Quesadilla_1 Start: 1, Stop: 633, Start Num: 11
Candidate Starts for Quesadilla_1:
(Start: 11 @1 has 3 MA's), (22, 97), (29, 187), (36, 265), (43, 313), (52, 433),

Gene: Qyrzula_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Qyrzula_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Rhinoforte_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Rhinoforte_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Rosebush_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Rosebush_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Sabella_1 Start: 76, Stop: 792, Start Num: 5
Candidate Starts for Sabella_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Saguaro_1 Start: 1, Stop: 735, Start Num: 6
Candidate Starts for Saguaro_1:
(Start: 6 @1 has 1 MA's), (7, 28), (Start: 11 @79 has 3 MA's), (23, 187), (29, 265), (37, 349), (39, 358), (41, 364), (42, 376), (43, 391), (44, 394), (48, 445), (54, 517), (63, 625), (72, 700),

Gene: TA17A_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for TA17A_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679), (60, 688),

Gene: Tinciduntsolum_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Tinciduntsolum_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),

Gene: Tres_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Tres_1:
(Start: 2 @1 has 32 MA's), (Start: 4 @37 has 2 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: Typha_1 Start: 202, Stop: 861, Start Num: 9
Candidate Starts for Typha_1:
(Start: 9 @202 has 4 MA's), (Start: 13 @235 has 1 MA's), (15, 247), (25, 352), (26, 364), (27, 367), (29, 406), (30, 409), (32, 430), (34, 445), (41, 481), (47, 559), (56, 652), (64, 760), (65, 763), (66, 766), (70, 814), (74, 850),

Gene: Vic9_00001 Start: 133, Stop: 792, Start Num: 8
Candidate Starts for Vic9_00001:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (58, 679),

Gene: West99_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for West99_1:
(Start: 2 @1 has 32 MA's), (Start: 5 @76 has 2 MA's), (Start: 8 @133 has 1 MA's), (Start: 13 @172 has 1 MA's), (14, 181), (18, 202), (29, 343), (30, 346), (32, 367), (33, 373), (37, 421), (41, 436), (43, 463), (45, 469), (51, 583), (52, 589), (53, 592), (54, 595), (58, 679),