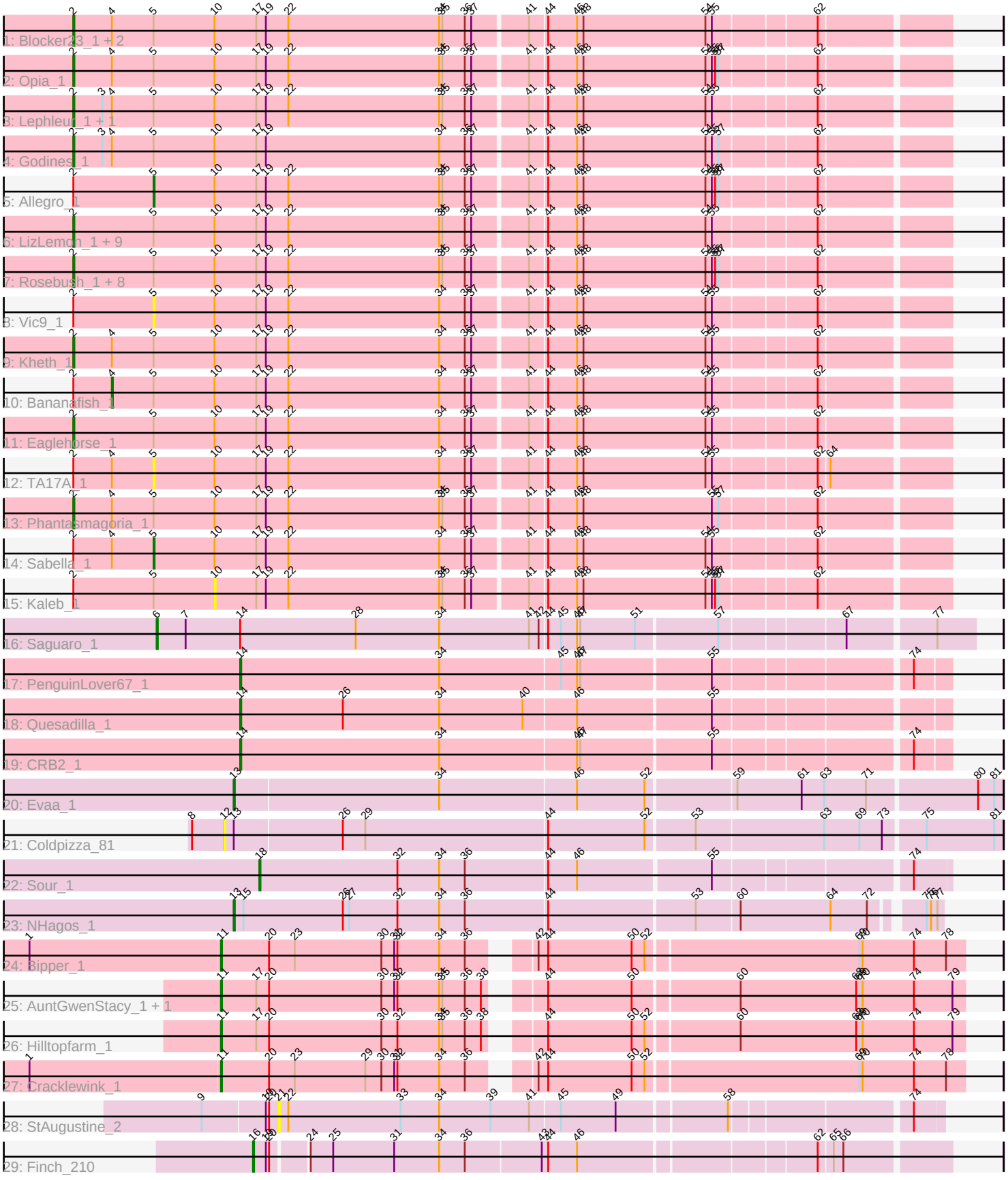
Pham 195651


1: Blocker23_1 + 2
2: Opia_1
3: Lephleur_1 + 1
4: Godines_1
5: Allegro_1
6: LizLemon_1 + 9
7: Rosebush_1 + 8
8: Vic9_1
9: Kheth_1
10: Bananafish_1
11: Eaglehorse_1
12: TA17A_1
13: Phantasmagoria_1
14: Sabella_1
15: Kaleb_1
16: Saguaro_1
17: PenguinLover67_1
18: Quesadilla_1
19: CRB2_1
20: Evaa_1
21: Coldpizza_81
22: Sour_1
23: NHagos_1
24: Bipper_1
25: AuntGwenStacy_1 + 1
26: Hilltopfarm_1
27: Cracklewink_1
28: StAugustine_2
29: 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 195651 Report

This analysis was run 12/09/24 on database version 580.

Pham number 195651 has 50 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Blocker23_1, Tres_1, Laurie_1
• Track 2 : Opia_1
• Track 3 : Lephleur_1, MasterPo_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 : Rosebush_1, Hedgerow_1, Boyle_1, FrenchFry_1, Coffee_1, Tinciduntsolum_1, Faze9_1, Brownie5_1, West99_1
• Track 8 : Vic9_1
• Track 9 : Kheth_1
• Track 10 : Bananafish_1
• Track 11 : Eaglehorse_1
• Track 12 : TA17A_1
• Track 13 : Phantasmagoria_1
• Track 14 : Sabella_1
• Track 15 : Kaleb_1
• Track 16 : Saguaro_1
• Track 17 : PenguinLover67_1
• Track 18 : Quesadilla_1
• Track 19 : CRB2_1
• Track 20 : Evaa_1
• Track 21 : Coldpizza_81
• Track 22 : Sour_1
• Track 23 : NHagos_1
• Track 24 : Bipper_1
• Track 25 : AuntGwenStacy_1, Typha_1
• Track 26 : Hilltopfarm_1
• Track 27 : Cracklewink_1
• Track 28 : StAugustine_2
• Track 29 : 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 29 of the 44 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, Kheth_1, Lars_1, Laurie_1, Lephleur_1, LizLemon_1, MasterPo_1, Opia_1, Phantasmagoria_1, Qyrzula_1, Rhinoforte_1, Rosebush_1, Tinciduntsolum_1, Tres_1, West99_1,

Genes that have the "Most Annotated" start but do not call it:
• Allegro_1, Bananafish_1, Kaleb_1, Sabella_1, TA17A_1, Vic9_1,

Genes that do not have the "Most Annotated" start:
• AuntGwenStacy_1, Bipper_1, CRB2_1, Coldpizza_81, Cracklewink_1, Evaa_1, Finch_210, Hilltopfarm_1, NHagos_1, PenguinLover67_1, Quesadilla_1, Saguaro_1, Sour_1, StAugustine_2, Typha_1,

Summary by start number:

Start 2:
• Found in 35 of 50 (70.0%) of genes in pham
• Manual Annotations of this start: 29 of 44
• Called 82.9% 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), Kheth_1 (B2), Lars_1 (B2), Laurie_1 (B2), Lephleur_1 (B2), LizLemon_1 (B2), MasterPo_1 (B2), Opia_1 (B2), Phantasmagoria_1 (B2), Qyrzula_1 (B2), Rhinoforte_1 (B2), Rosebush_1 (B2), Tinciduntsolum_1 (B2), Tres_1 (B2), West99_1 (B2),

Start 4:
• Found in 12 of 50 (24.0%) of genes in pham
• Manual Annotations of this start: 1 of 44
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Bananafish_1 (B2),

Start 5:
• Found in 35 of 50 (70.0%) of genes in pham
• Manual Annotations of this start: 2 of 44
• Called 11.4% of time when present
• Phage (with cluster) where this start called: Allegro_1 (B2), Sabella_1 (B2), TA17A_1 (B2), Vic9_1 (B2),

Start 6:
• Found in 1 of 50 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 44
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Saguaro_1 (B7),

Start 10:
• Found in 35 of 50 (70.0%) of genes in pham

• No Manual Annotations of this start.
• Called 2.9% of time when present
• Phage (with cluster) where this start called: Kaleb_1 (B2),

Start 11:
• Found in 5 of 50 (10.0%) of genes in pham
• Manual Annotations of this start: 4 of 44
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AuntGwenStacy_1 (Y), Bipper_1 (Y), Cracklewink_1 (Y), Hilltopfarm_1 (Y), Typha_1 (Y),

Start 12:
• Found in 1 of 50 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Coldpizza_81 (DR),

Start 13:
• Found in 3 of 50 (6.0%) of genes in pham
• Manual Annotations of this start: 2 of 44
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Evaa_1 (DR), NHagos_1 (DR),

Start 14:
• Found in 4 of 50 (8.0%) of genes in pham
• Manual Annotations of this start: 3 of 44
• Called 75.0% of time when present
• Phage (with cluster) where this start called: CRB2_1 (B9), PenguinLover67_1 (B9), Quesadilla_1 (B9),

Start 16:
• Found in 1 of 50 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 44
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finch_210 (singleton),

Start 18:
• Found in 1 of 50 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 44
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sour_1 (DR),

Start 21:
• Found in 1 of 50 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: StAugustine_2 (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 29 times for cluster B2.
•Start number 4 was manually annotated 1 time for cluster B2.
•Start number 5 was manually annotated 2 times 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 14 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster DR:
•Start number 13 was manually annotated 2 times for cluster DR.
•Start number 18 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster Y:
•Start number 11 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 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Arbiter_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Arbiter_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Ares_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Ares_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: AuntGwenStacy_1 Start: 202, Stop: 861, Start Num: 11
Candidate Starts for AuntGwenStacy_1:
(Start: 11 @202 has 4 MA's), (17, 235), (20, 247), (30, 352), (31, 364), (32, 367), (34, 406), (35, 409), (36, 430), (38, 445), (44, 481), (50, 559), (60, 652), (68, 760), (69, 763), (70, 766), (74, 814), (79, 850),

Gene: Bananafish_1 Start: 37, Stop: 792, Start Num: 4
Candidate Starts for Bananafish_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Bipper_1 Start: 202, Stop: 861, Start Num: 11
Candidate Starts for Bipper_1:

(1, 25), (Start: 11 @202 has 4 MA's), (20, 247), (23, 271), (30, 352), (31, 364), (32, 367), (34, 406), (36, 430), (42, 472), (44, 481), (50, 559), (52, 571), (69, 763), (70, 766), (74, 814), (78, 844),

Gene: Blocker23_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Blocker23_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Boyle_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Boyle_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Brownie5_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Brownie5_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: CRB2_1 Start: 1, Stop: 633, Start Num: 14
Candidate Starts for CRB2_1:
(Start: 14 @1 has 3 MA's), (34, 187), (46, 313), (47, 316), (55, 433), (74, 601),

Gene: Calamitous_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Calamitous_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Coffee_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Coffee_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Coldpizza_81 Start: 61643, Stop: 699, Start Num: 12
Candidate Starts for Coldpizza_81:
(8, 61613), (12, 61643), (Start: 13 @61652 has 2 MA's), (26, 61751), (29, 61772), (44, 61940), (52, 62030), (53, 62072), (63, 62189), (69, 62222), (73, 62243), (75, 62279), (81, 62342),

Gene: Cracklewink_1 Start: 202, Stop: 861, Start Num: 11
Candidate Starts for Cracklewink_1:
(1, 25), (Start: 11 @202 has 4 MA's), (20, 247), (23, 271), (29, 337), (30, 352), (31, 364), (32, 367), (34, 406), (36, 430), (42, 472), (44, 481), (50, 559), (52, 571), (69, 763), (70, 766), (74, 814), (78, 844),

Gene: Eaglehorse_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Eaglehorse_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Evaa_1 Start: 1, Stop: 699, Start Num: 13

Candidate Starts for Evaa_1:
(Start: 13 @1 has 2 MA's), (34, 190), (46, 316), (52, 379), (59, 457), (61, 517), (63, 538), (71, 577), (80, 676), (81, 691),

Gene: Faze9_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Faze9_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Finch_210 Start: 122277, Stop: 122888, Start Num: 16
Candidate Starts for Finch_210:
(Start: 16 @122277 has 1 MA's), (19, 122289), (20, 122292), (24, 122322), (25, 122343), (31, 122400), (34, 122442), (36, 122466), (43, 122535), (44, 122541), (46, 122568), (62, 122775), (65, 122787), (66, 122796),

Gene: FrenchFry_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for FrenchFry_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Glass_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Glass_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Godines_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Godines_1:
(Start: 2 @1 has 29 MA's), (3, 28), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (34, 343), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (57, 595), (62, 679),

Gene: Hedgerow_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Hedgerow_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Hilltopfarm_1 Start: 202, Stop: 861, Start Num: 11
Candidate Starts for Hilltopfarm_1:
(Start: 11 @202 has 4 MA's), (17, 235), (20, 247), (30, 352), (32, 367), (34, 406), (35, 409), (36, 430), (38, 445), (44, 481), (50, 559), (52, 571), (60, 652), (68, 760), (69, 763), (70, 766), (74, 814), (79, 850),

Gene: Holeinone_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Holeinone_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: ItsyBitsy1_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for ItsyBitsy1_1:

(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Kaleb_1 Start: 133, Stop: 792, Start Num: 10
Candidate Starts for Kaleb_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Kheth_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Kheth_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Lars_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Lars_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Laurie_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Laurie_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Lephleur_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Lephleur_1:
(Start: 2 @1 has 29 MA's), (3, 28), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: LizLemon_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for LizLemon_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: MasterPo_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for MasterPo_1:
(Start: 2 @1 has 29 MA's), (3, 28), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: NHagos_1 Start: 1, Stop: 633, Start Num: 13
Candidate Starts for NHagos_1:
(Start: 13 @1 has 2 MA's), (15, 10), (26, 103), (27, 109), (32, 154), (34, 193), (36, 217), (44, 292), (53, 424), (60, 463), (64, 547), (72, 580), (75, 619), (76, 622), (77, 628),

Gene: Opia_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Opia_1:

(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: PenguinLover67_1 Start: 1, Stop: 633, Start Num: 14
Candidate Starts for PenguinLover67_1:
(Start: 14 @1 has 3 MA's), (34, 187), (45, 298), (46, 313), (47, 316), (55, 433), (74, 601),

Gene: Phantasmagoria_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Phantasmagoria_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (55, 589), (57, 595), (62, 679),

Gene: Quesadilla_1 Start: 1, Stop: 633, Start Num: 14
Candidate Starts for Quesadilla_1:
(Start: 14 @1 has 3 MA's), (26, 97), (34, 187), (40, 265), (46, 313), (55, 433),

Gene: Qyrzula_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Qyrzula_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Rhinoforte_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Rhinoforte_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Rosebush_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Rosebush_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Sabella_1 Start: 76, Stop: 792, Start Num: 5
Candidate Starts for Sabella_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 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: 14 @79 has 3 MA's), (28, 187), (34, 265), (41, 349), (42, 358), (44, 364), (45, 376), (46, 391), (47, 394), (51, 445), (57, 517), (67, 625), (77, 700),

Gene: Sour_1 Start: 1, Stop: 615, Start Num: 18
Candidate Starts for Sour_1:
(Start: 18 @1 has 1 MA's), (32, 130), (34, 169), (36, 193), (44, 268), (46, 295), (55, 415), (74, 583),

Gene: StAugustine_2 Start: 428, Stop: 1015, Start Num: 21
Candidate Starts for StAugustine_2:

(9, 359), (19, 416), (20, 419), (21, 428), (22, 437), (33, 542), (34, 578), (39, 626), (41, 662), (45, 689), (49, 740), (58, 836), (74, 989),

Gene: TA17A_1 Start: 76, Stop: 792, Start Num: 5
Candidate Starts for TA17A_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679), (64, 688),

Gene: Tinciduntsolum_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Tinciduntsolum_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),

Gene: Tres_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for Tres_1:
(Start: 2 @1 has 29 MA's), (Start: 4 @37 has 1 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: Typha_1 Start: 202, Stop: 861, Start Num: 11
Candidate Starts for Typha_1:
(Start: 11 @202 has 4 MA's), (17, 235), (20, 247), (30, 352), (31, 364), (32, 367), (34, 406), (35, 409), (36, 430), (38, 445), (44, 481), (50, 559), (60, 652), (68, 760), (69, 763), (70, 766), (74, 814), (79, 850),

Gene: Vic9_1 Start: 76, Stop: 792, Start Num: 5
Candidate Starts for Vic9_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (62, 679),

Gene: West99_1 Start: 1, Stop: 792, Start Num: 2
Candidate Starts for West99_1:
(Start: 2 @1 has 29 MA's), (Start: 5 @76 has 2 MA's), (10, 133), (17, 172), (19, 181), (22, 202), (34, 343), (35, 346), (36, 367), (37, 373), (41, 421), (44, 436), (46, 463), (48, 469), (54, 583), (55, 589), (56, 592), (57, 595), (62, 679),