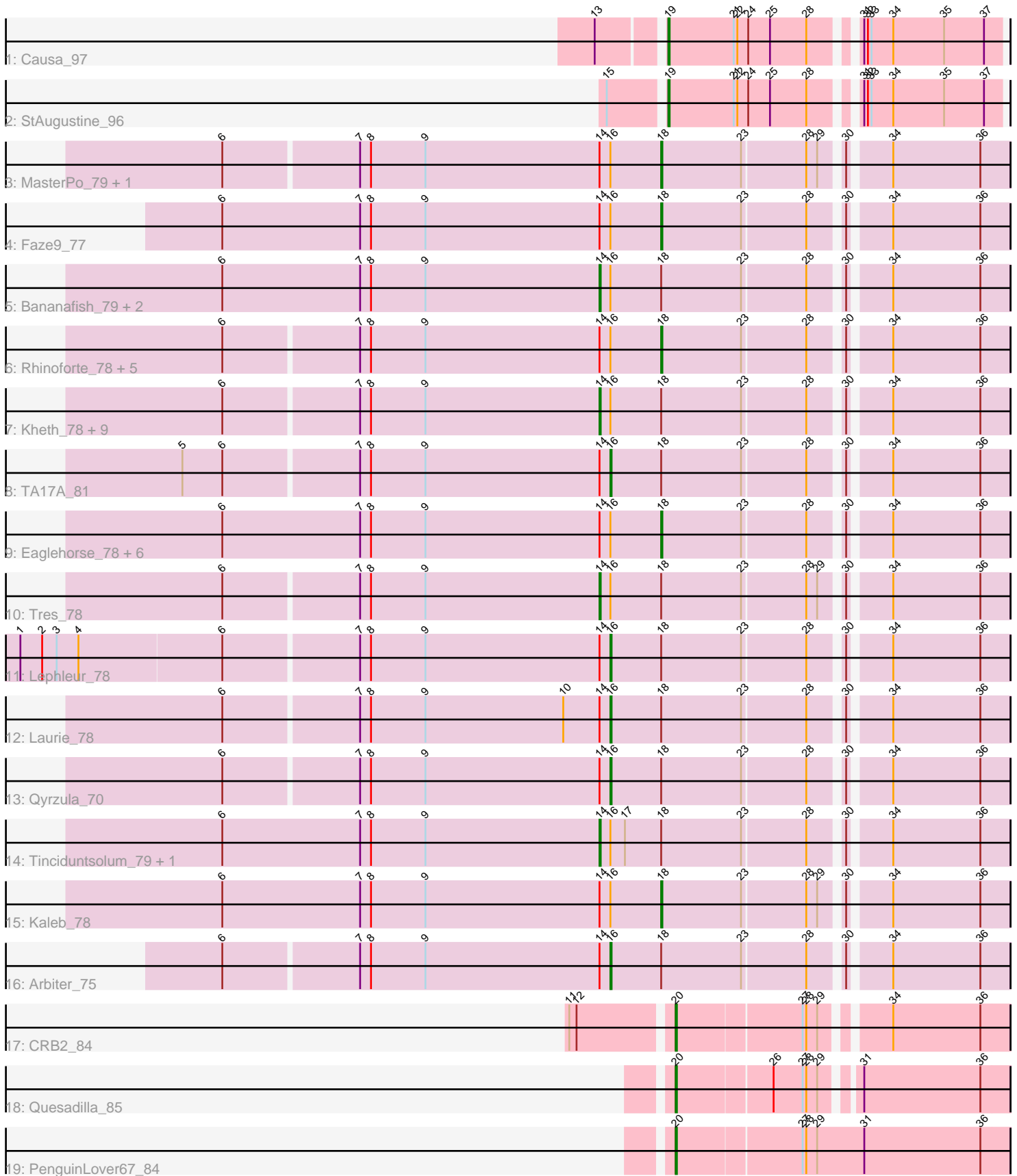


Pham 308833



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 308833 Report

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

Pham number 308833 has 43 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Causa_97
- Track 2 : StAugustine_96
- Track 3 : MasterPo_79, PrinceCharming_79
- Track 4 : Faze9_77
- Track 5 : Bananafish_79, Hedgerow_78, Calamitous_79
- Track 6 : Rhinoforte_78, Godines_78, Blocker23_78, Holeinone_78, Boyle_78, Allegro_78
- Track 7 : Kheth_78, Phantasmagoria_77, FrenchFry_79, Opia_79, Ares_78, LizLemon_78, ItsyBitsy1_76, Lars_79, Rosebush_76, Sabella_78
- Track 8 : TA17A_81
- Track 9 : Eaglehorse_78, Kolhan_79, Glass_80, LilSmirk_78, Vic9_00077, West99_78, Coffee_78
- Track 10 : Tres_78
- Track 11 : Lephleur_78
- Track 12 : Laurie_78
- Track 13 : Qyrzula_70
- Track 14 : Tinciduntolum_79, Brownie5_78
- Track 15 : Kaleb_78
- Track 16 : Arbiter_75
- Track 17 : CRB2_84
- Track 18 : Quesadilla_85
- Track 19 : PenguinLover67_84

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

The start number called the most often in the published annotations is 14, it was called in 16 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ares_78, Bananafish_79, Brownie5_78, Calamitous_79, FrenchFry_79, Hedgerow_78, ItsyBitsy1_76, Kheth_78, Lars_79, LizLemon_78, Opia_79, Phantasmagoria_77, Rosebush_76, Sabella_78, Tinciduntolum_79, Tres_78,

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

- Allegro_78, Arbiter_75, Blocker23_78, Boyle_78, Coffee_78, Eaglehorse_78, Faze9_77, Glass_80, Godines_78, Holeinone_78, Kaleb_78, Kolhan_79, Laurie_78, Lephleur_78, LilSmirk_78, MasterPo_79, PrinceCharming_79, Qyrzula_70, Rhinoforte_78, TA17A_81, Vic9_00077, West99_78,

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

- CRB2_84, Causa_97, PenguinLover67_84, Quesadilla_85, StAugustine_96,

Summary by start number:

Start 14:

- Found in 38 of 43 (88.4%) of genes in pham
- Manual Annotations of this start: 16 of 42
- Called 42.1% of time when present
- Phage (with cluster) where this start called: Ares_78 (B2), Bananafish_79 (B2), Brownie5_78 (B2), Calamitous_79 (B2), FrenchFry_79 (B2), Hedgerow_78 (B2), ItsyBitsy1_76 (B2), Kheth_78 (B2), Lars_79 (B2), LizLemon_78 (B2), Opia_79 (B2), Phantasmagoria_77 (B2), Rosebush_76 (B2), Sabella_78 (B2), Tinciduntolum_79 (B2), Tres_78 (B2),

Start 16:

- Found in 38 of 43 (88.4%) of genes in pham
- Manual Annotations of this start: 5 of 42
- Called 13.2% of time when present
- Phage (with cluster) where this start called: Arbiter_75 (B2), Laurie_78 (B2), Lephleur_78 (B2), Qyrzula_70 (B2), TA17A_81 (B2),

Start 18:

- Found in 38 of 43 (88.4%) of genes in pham
- Manual Annotations of this start: 16 of 42
- Called 44.7% of time when present
- Phage (with cluster) where this start called: Allegro_78 (B2), Blocker23_78 (B2), Boyle_78 (B2), Coffee_78 (B2), Eaglehorse_78 (B2), Faze9_77 (B2), Glass_80 (B2), Godines_78 (B2), Holeinone_78 (B2), Kaleb_78 (B2), Kolhan_79 (B2), LilSmirk_78 (B2), MasterPo_79 (B2), PrinceCharming_79 (B2), Rhinoforte_78 (B2), Vic9_00077 (B2), West99_78 (B2),

Start 19:

- Found in 2 of 43 (4.7%) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Causa_97 (A1), StAugustine_96 (A1),

Start 20:

- Found in 3 of 43 (7.0%) of genes in pham
- Manual Annotations of this start: 3 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CRB2_84 (B9), PenguinLover67_84 (B9), Quesadilla_85 (B9),

Summary by clusters:

There are 3 clusters represented in this pham: A1, B9, B2,

Info for manual annotations of cluster A1:

- Start number 19 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster B2:

- Start number 14 was manually annotated 16 times for cluster B2.
- Start number 16 was manually annotated 5 times for cluster B2.
- Start number 18 was manually annotated 16 times for cluster B2.

Info for manual annotations of cluster B9:

- Start number 20 was manually annotated 3 times for cluster B9.

Gene Information:

Gene: Allegro_78 Start: 61397, Stop: 61131, Start Num: 18

Candidate Starts for Allegro_78:

(6, 61754), (7, 61646), (8, 61637), (9, 61592), (Start: 14 @61448 has 16 MA's), (Start: 16 @61439 has 5 MA's), (Start: 18 @61397 has 16 MA's), (23, 61331), (28, 61280), (30, 61256), (34, 61226), (36, 61154),

Gene: Arbiter_75 Start: 61486, Stop: 61178, Start Num: 16

Candidate Starts for Arbiter_75:

(6, 61801), (7, 61693), (8, 61684), (9, 61639), (Start: 14 @61495 has 16 MA's), (Start: 16 @61486 has 5 MA's), (Start: 18 @61444 has 16 MA's), (23, 61378), (28, 61327), (30, 61303), (34, 61273), (36, 61201),

Gene: Ares_78 Start: 61453, Stop: 61136, Start Num: 14

Candidate Starts for Ares_78:

(6, 61759), (7, 61651), (8, 61642), (9, 61597), (Start: 14 @61453 has 16 MA's), (Start: 16 @61444 has 5 MA's), (Start: 18 @61402 has 16 MA's), (23, 61336), (28, 61285), (30, 61261), (34, 61231), (36, 61159),

Gene: Bananafish_79 Start: 61384, Stop: 61067, Start Num: 14

Candidate Starts for Bananafish_79:

(6, 61696), (7, 61582), (8, 61573), (9, 61528), (Start: 14 @61384 has 16 MA's), (Start: 16 @61375 has 5 MA's), (Start: 18 @61333 has 16 MA's), (23, 61267), (28, 61216), (30, 61192), (34, 61162), (36, 61090),

Gene: Blocker23_78 Start: 61401, Stop: 61135, Start Num: 18

Candidate Starts for Blocker23_78:

(6, 61758), (7, 61650), (8, 61641), (9, 61596), (Start: 14 @61452 has 16 MA's), (Start: 16 @61443 has 5 MA's), (Start: 18 @61401 has 16 MA's), (23, 61335), (28, 61284), (30, 61260), (34, 61230), (36, 61158),

Gene: Boyle_78 Start: 61451, Stop: 61185, Start Num: 18

Candidate Starts for Boyle_78:

(6, 61808), (7, 61700), (8, 61691), (9, 61646), (Start: 14 @61502 has 16 MA's), (Start: 16 @61493 has 5 MA's), (Start: 18 @61451 has 16 MA's), (23, 61385), (28, 61334), (30, 61310), (34, 61280), (36, 61208),

Gene: Brownie5_78 Start: 61497, Stop: 61180, Start Num: 14

Candidate Starts for Brownie5_78:

(6, 61809), (7, 61695), (8, 61686), (9, 61641), (Start: 14 @61497 has 16 MA's), (Start: 16 @61488 has 5 MA's), (17, 61476), (Start: 18 @61446 has 16 MA's), (23, 61380), (28, 61329), (30, 61305), (34, 61275), (36, 61203),

Gene: CRB2_84 Start: 66526, Stop: 66275, Start Num: 20

Candidate Starts for CRB2_84:

(11, 66601), (12, 66595), (Start: 20 @66526 has 3 MA's), (27, 66427), (28, 66424), (29, 66415), (34, 66370), (36, 66298),

Gene: Calamitous_79 Start: 61379, Stop: 61062, Start Num: 14

Candidate Starts for Calamitous_79:

(6, 61691), (7, 61577), (8, 61568), (9, 61523), (Start: 14 @61379 has 16 MA's), (Start: 16 @61370 has 5 MA's), (Start: 18 @61328 has 16 MA's), (23, 61262), (28, 61211), (30, 61187), (34, 61157), (36, 61085),

Gene: Causa_97 Start: 69837, Stop: 70094, Start Num: 19

Candidate Starts for Causa_97:

(13, 69789), (Start: 19 @69837 has 2 MA's), (21, 69891), (22, 69894), (24, 69903), (25, 69921), (28, 69951), (31, 69981), (32, 69984), (33, 69987), (34, 70005), (35, 70047), (37, 70080),

Gene: Coffee_78 Start: 61439, Stop: 61173, Start Num: 18

Candidate Starts for Coffee_78:

(6, 61802), (7, 61688), (8, 61679), (9, 61634), (Start: 14 @61490 has 16 MA's), (Start: 16 @61481 has 5 MA's), (Start: 18 @61439 has 16 MA's), (23, 61373), (28, 61322), (30, 61298), (34, 61268), (36, 61196),

Gene: Eaglehorse_78 Start: 61322, Stop: 61056, Start Num: 18

Candidate Starts for Eaglehorse_78:

(6, 61685), (7, 61571), (8, 61562), (9, 61517), (Start: 14 @61373 has 16 MA's), (Start: 16 @61364 has 5 MA's), (Start: 18 @61322 has 16 MA's), (23, 61256), (28, 61205), (30, 61181), (34, 61151), (36, 61079),

Gene: Faze9_77 Start: 61460, Stop: 61194, Start Num: 18

Candidate Starts for Faze9_77:

(6, 61823), (7, 61709), (8, 61700), (9, 61655), (Start: 14 @61511 has 16 MA's), (Start: 16 @61502 has 5 MA's), (Start: 18 @61460 has 16 MA's), (23, 61394), (28, 61343), (30, 61319), (34, 61289), (36, 61217),

Gene: FrenchFry_79 Start: 61504, Stop: 61187, Start Num: 14

Candidate Starts for FrenchFry_79:

(6, 61810), (7, 61702), (8, 61693), (9, 61648), (Start: 14 @61504 has 16 MA's), (Start: 16 @61495 has 5 MA's), (Start: 18 @61453 has 16 MA's), (23, 61387), (28, 61336), (30, 61312), (34, 61282), (36, 61210),

Gene: Glass_80 Start: 61454, Stop: 61188, Start Num: 18

Candidate Starts for Glass_80:

(6, 61817), (7, 61703), (8, 61694), (9, 61649), (Start: 14 @61505 has 16 MA's), (Start: 16 @61496 has 5 MA's), (Start: 18 @61454 has 16 MA's), (23, 61388), (28, 61337), (30, 61313), (34, 61283), (36, 61211),

Gene: Godines_78 Start: 61366, Stop: 61100, Start Num: 18

Candidate Starts for Godines_78:

(6, 61723), (7, 61615), (8, 61606), (9, 61561), (Start: 14 @61417 has 16 MA's), (Start: 16 @61408 has 5 MA's), (Start: 18 @61366 has 16 MA's), (23, 61300), (28, 61249), (30, 61225), (34, 61195), (36, 61123),

Gene: Hedgerow_78 Start: 61462, Stop: 61145, Start Num: 14

Candidate Starts for Hedgerow_78:

(6, 61774), (7, 61660), (8, 61651), (9, 61606), (Start: 14 @61462 has 16 MA's), (Start: 16 @61453 has 5 MA's), (Start: 18 @61411 has 16 MA's), (23, 61345), (28, 61294), (30, 61270), (34, 61240), (36, 61168),

Gene: Holeinone_78 Start: 61307, Stop: 61041, Start Num: 18

Candidate Starts for Holeinone_78:

(6, 61664), (7, 61556), (8, 61547), (9, 61502), (Start: 14 @61358 has 16 MA's), (Start: 16 @61349 has 5 MA's), (Start: 18 @61307 has 16 MA's), (23, 61241), (28, 61190), (30, 61166), (34, 61136), (36, 61064),

Gene: ItsyBitsy1_76 Start: 61586, Stop: 61269, Start Num: 14

Candidate Starts for ItsyBitsy1_76:

(6, 61892), (7, 61784), (8, 61775), (9, 61730), (Start: 14 @61586 has 16 MA's), (Start: 16 @61577 has 5 MA's), (Start: 18 @61535 has 16 MA's), (23, 61469), (28, 61418), (30, 61394), (34, 61364), (36, 61292),

Gene: Kaleb_78 Start: 61457, Stop: 61191, Start Num: 18

Candidate Starts for Kaleb_78:

(6, 61820), (7, 61706), (8, 61697), (9, 61652), (Start: 14 @61508 has 16 MA's), (Start: 16 @61499 has 5 MA's), (Start: 18 @61457 has 16 MA's), (23, 61391), (28, 61340), (29, 61331), (30, 61316), (34, 61286), (36, 61214),

Gene: Kheth_78 Start: 61419, Stop: 61102, Start Num: 14

Candidate Starts for Kheth_78:

(6, 61725), (7, 61617), (8, 61608), (9, 61563), (Start: 14 @61419 has 16 MA's), (Start: 16 @61410 has 5 MA's), (Start: 18 @61368 has 16 MA's), (23, 61302), (28, 61251), (30, 61227), (34, 61197), (36, 61125),

Gene: Kolhan_79 Start: 61350, Stop: 61084, Start Num: 18

Candidate Starts for Kolhan_79:

(6, 61713), (7, 61599), (8, 61590), (9, 61545), (Start: 14 @61401 has 16 MA's), (Start: 16 @61392 has 5 MA's), (Start: 18 @61350 has 16 MA's), (23, 61284), (28, 61233), (30, 61209), (34, 61179), (36, 61107),

Gene: Lars_79 Start: 61483, Stop: 61166, Start Num: 14

Candidate Starts for Lars_79:

(6, 61789), (7, 61681), (8, 61672), (9, 61627), (Start: 14 @61483 has 16 MA's), (Start: 16 @61474 has 5 MA's), (Start: 18 @61432 has 16 MA's), (23, 61366), (28, 61315), (30, 61291), (34, 61261), (36, 61189),

Gene: Laurie_78 Start: 60812, Stop: 60504, Start Num: 16

Candidate Starts for Laurie_78:

(6, 61127), (7, 61019), (8, 61010), (9, 60965), (10, 60851), (Start: 14 @60821 has 16 MA's), (Start: 16 @60812 has 5 MA's), (Start: 18 @60770 has 16 MA's), (23, 60704), (28, 60653), (30, 60629), (34, 60599), (36, 60527),

Gene: Lephleur_78 Start: 61333, Stop: 61025, Start Num: 16

Candidate Starts for Lephleur_78:

(1, 61813), (2, 61795), (3, 61783), (4, 61765), (6, 61648), (7, 61540), (8, 61531), (9, 61486), (Start: 14 @61342 has 16 MA's), (Start: 16 @61333 has 5 MA's), (Start: 18 @61291 has 16 MA's), (23, 61225), (28, 61174), (30, 61150), (34, 61120), (36, 61048),

Gene: LilSmirk_78 Start: 61321, Stop: 61055, Start Num: 18

Candidate Starts for LilSmirk_78:

(6, 61684), (7, 61570), (8, 61561), (9, 61516), (Start: 14 @61372 has 16 MA's), (Start: 16 @61363 has 5 MA's), (Start: 18 @61321 has 16 MA's), (23, 61255), (28, 61204), (30, 61180), (34, 61150), (36, 61078),

Gene: LizLemon_78 Start: 61510, Stop: 61193, Start Num: 14

Candidate Starts for LizLemon_78:

(6, 61816), (7, 61708), (8, 61699), (9, 61654), (Start: 14 @61510 has 16 MA's), (Start: 16 @61501 has 5 MA's), (Start: 18 @61459 has 16 MA's), (23, 61393), (28, 61342), (30, 61318), (34, 61288), (36, 61216),

Gene: MasterPo_79 Start: 61329, Stop: 61063, Start Num: 18

Candidate Starts for MasterPo_79:

(6, 61686), (7, 61578), (8, 61569), (9, 61524), (Start: 14 @61380 has 16 MA's), (Start: 16 @61371 has 5 MA's), (Start: 18 @61329 has 16 MA's), (23, 61263), (28, 61212), (29, 61203), (30, 61188), (34, 61158), (36, 61086),

Gene: Opia_79 Start: 61403, Stop: 61086, Start Num: 14

Candidate Starts for Opia_79:

(6, 61709), (7, 61601), (8, 61592), (9, 61547), (Start: 14 @61403 has 16 MA's), (Start: 16 @61394 has 5 MA's), (Start: 18 @61352 has 16 MA's), (23, 61286), (28, 61235), (30, 61211), (34, 61181), (36, 61109),

Gene: PenguinLover67_84 Start: 64278, Stop: 64009, Start Num: 20

Candidate Starts for PenguinLover67_84:

(Start: 20 @64278 has 3 MA's), (27, 64179), (28, 64176), (29, 64167), (31, 64128), (36, 64032),

Gene: Phantasmagoria_77 Start: 61386, Stop: 61069, Start Num: 14

Candidate Starts for Phantasmagoria_77:

(6, 61692), (7, 61584), (8, 61575), (9, 61530), (Start: 14 @61386 has 16 MA's), (Start: 16 @61377 has 5 MA's), (Start: 18 @61335 has 16 MA's), (23, 61269), (28, 61218), (30, 61194), (34, 61164), (36, 61092),

Gene: PrinceCharming_79 Start: 61381, Stop: 61115, Start Num: 18

Candidate Starts for PrinceCharming_79:

(6, 61738), (7, 61630), (8, 61621), (9, 61576), (Start: 14 @61432 has 16 MA's), (Start: 16 @61423 has 5 MA's), (Start: 18 @61381 has 16 MA's), (23, 61315), (28, 61264), (29, 61255), (30, 61240), (34, 61210), (36, 61138),

Gene: Quesadilla_85 Start: 64895, Stop: 64641, Start Num: 20

Candidate Starts for Quesadilla_85:

(Start: 20 @64895 has 3 MA's), (26, 64820), (27, 64796), (28, 64793), (29, 64784), (31, 64760), (36, 64664),

Gene: Qyrzula_70 Start: 61516, Stop: 61208, Start Num: 16

Candidate Starts for Qyrzula_70:

(6, 61831), (7, 61723), (8, 61714), (9, 61669), (Start: 14 @61525 has 16 MA's), (Start: 16 @61516 has 5 MA's), (Start: 18 @61474 has 16 MA's), (23, 61408), (28, 61357), (30, 61333), (34, 61303), (36, 61231),

Gene: Rhinoforte_78 Start: 61370, Stop: 61104, Start Num: 18

Candidate Starts for Rhinoforte_78:

(6, 61727), (7, 61619), (8, 61610), (9, 61565), (Start: 14 @61421 has 16 MA's), (Start: 16 @61412 has 5 MA's), (Start: 18 @61370 has 16 MA's), (23, 61304), (28, 61253), (30, 61229), (34, 61199), (36, 61127),

Gene: Rosebush_76 Start: 61494, Stop: 61177, Start Num: 14

Candidate Starts for Rosebush_76:

(6, 61800), (7, 61692), (8, 61683), (9, 61638), (Start: 14 @61494 has 16 MA's), (Start: 16 @61485 has 5 MA's), (Start: 18 @61443 has 16 MA's), (23, 61377), (28, 61326), (30, 61302), (34, 61272), (36, 61200),

Gene: Sabella_78 Start: 61331, Stop: 61014, Start Num: 14

Candidate Starts for Sabella_78:

(6, 61637), (7, 61529), (8, 61520), (9, 61475), (Start: 14 @61331 has 16 MA's), (Start: 16 @61322 has 5 MA's), (Start: 18 @61280 has 16 MA's), (23, 61214), (28, 61163), (30, 61139), (34, 61109), (36, 61037),

Gene: StAugustine_96 Start: 71543, Stop: 71800, Start Num: 19

Candidate Starts for StAugustine_96:

(15, 71501), (Start: 19 @71543 has 2 MA's), (21, 71597), (22, 71600), (24, 71609), (25, 71627), (28, 71657), (31, 71687), (32, 71690), (33, 71693), (34, 71711), (35, 71753), (37, 71786),

Gene: TA17A_81 Start: 61328, Stop: 61020, Start Num: 16

Candidate Starts for TA17A_81:

(5, 61676), (6, 61643), (7, 61535), (8, 61526), (9, 61481), (Start: 14 @61337 has 16 MA's), (Start: 16 @61328 has 5 MA's), (Start: 18 @61286 has 16 MA's), (23, 61220), (28, 61169), (30, 61145), (34, 61115), (36, 61043),

Gene: Tinciduntolum_79 Start: 61496, Stop: 61179, Start Num: 14

Candidate Starts for Tinciduntolum_79:

(6, 61808), (7, 61694), (8, 61685), (9, 61640), (Start: 14 @61496 has 16 MA's), (Start: 16 @61487 has 5 MA's), (17, 61475), (Start: 18 @61445 has 16 MA's), (23, 61379), (28, 61328), (30, 61304), (34, 61274), (36, 61202),

Gene: Tres_78 Start: 61353, Stop: 61036, Start Num: 14

Candidate Starts for Tres_78:

(6, 61659), (7, 61551), (8, 61542), (9, 61497), (Start: 14 @61353 has 16 MA's), (Start: 16 @61344 has 5 MA's), (Start: 18 @61302 has 16 MA's), (23, 61236), (28, 61185), (29, 61176), (30, 61161), (34, 61131), (36, 61059),

Gene: Vic9_00077 Start: 61830, Stop: 61564, Start Num: 18

Candidate Starts for Vic9_00077:

(6, 62193), (7, 62079), (8, 62070), (9, 62025), (Start: 14 @61881 has 16 MA's), (Start: 16 @61872 has 5 MA's), (Start: 18 @61830 has 16 MA's), (23, 61764), (28, 61713), (30, 61689), (34, 61659), (36, 61587),

Gene: West99_78 Start: 61467, Stop: 61201, Start Num: 18

Candidate Starts for West99_78:

(6, 61830), (7, 61716), (8, 61707), (9, 61662), (Start: 14 @61518 has 16 MA's), (Start: 16 @61509 has 5 MA's), (Start: 18 @61467 has 16 MA's), (23, 61401), (28, 61350), (30, 61326), (34, 61296), (36, 61224),