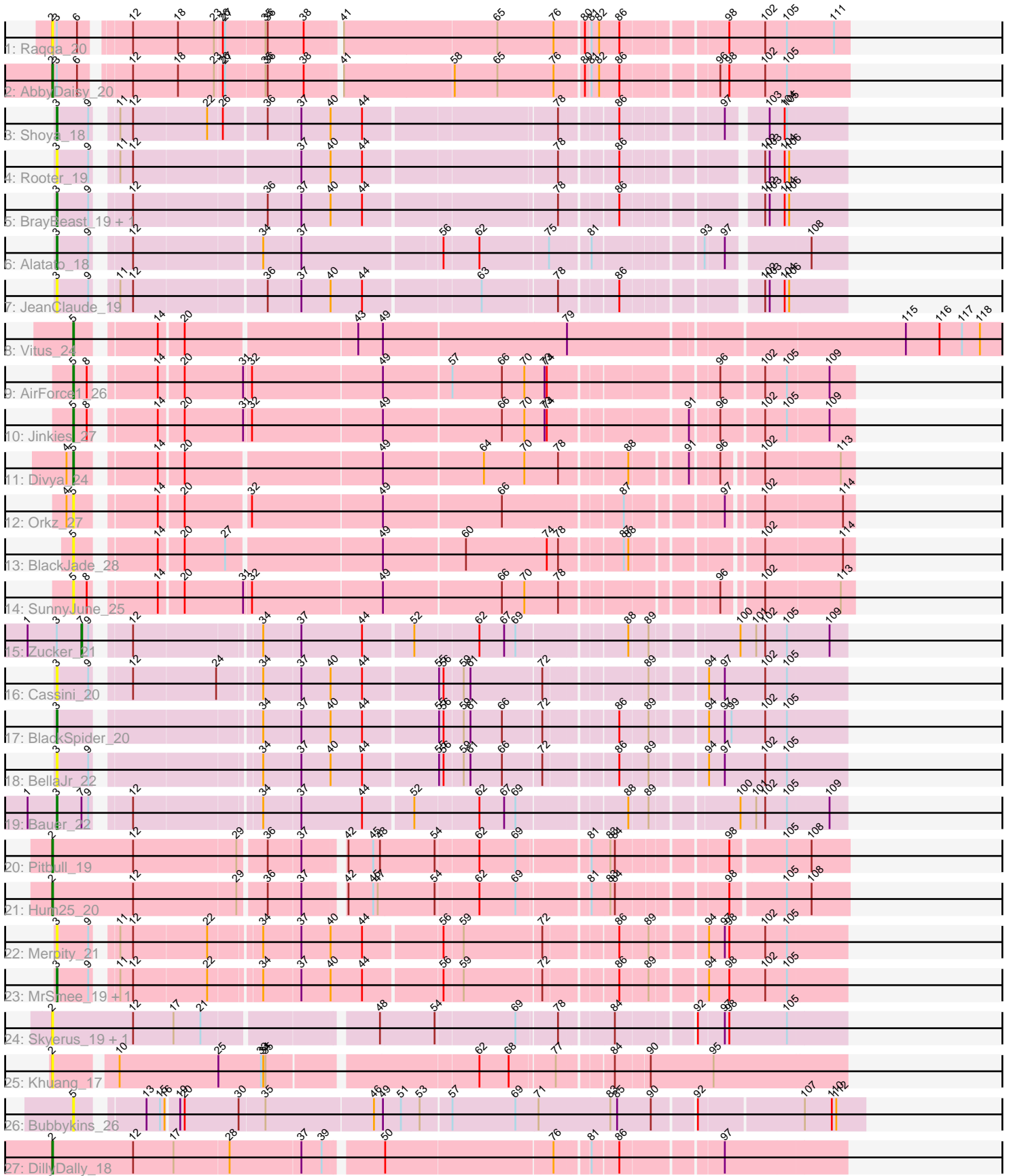


Pham 309041



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 309041 Report

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

Pham number 309041 has 30 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Raqqa_20
- Track 2 : AbbyDaisy_20
- Track 3 : Shoya_18
- Track 4 : Rooter_19
- Track 5 : BrayBeast_19, Sarge_19
- Track 6 : Alatato_18
- Track 7 : JeanClaude_19
- Track 8 : Vitus_24
- Track 9 : AirForce1_26
- Track 10 : Jinkies_27
- Track 11 : Divya_24
- Track 12 : Orkz_27
- Track 13 : BlackJade_28
- Track 14 : SunnyJune_25
- Track 15 : Zucker_21
- Track 16 : Cassini_20
- Track 17 : BlackSpider_20
- Track 18 : BellaJr_22
- Track 19 : Bauer_22
- Track 20 : Pitbull_19
- Track 21 : Hum25_20
- Track 22 : Merpity_21
- Track 23 : MrSmee_19, Skitty_19
- Track 24 : Skyerus_19, Raya_19
- Track 25 : Khuang_17
- Track 26 : Bubbykins_26
- Track 27 : DillyDally_18

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

The start number called the most often in the published annotations is 3, it was called in 8 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alatato_18, Bauer_22, BellaJr_22, BlackSpider_20, BrayBeast_19, Cassini_20, JeanClaude_19, Merpity_21, MrSmee_19, Rooter_19, Sarge_19, Shoya_18, Skitty_19,

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

- AbbyDaisy_20, Raqqa_20, Zucker_21,

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

- AirForce1_26, BlackJade_28, Bubbykins_26, DillyDally_18, Divya_24, Hum25_20, Jinkies_27, Khuang_17, Orkz_27, Pitbull_19, Raya_19, Skyerus_19, SunnyJune_25, Vitus_24,

Summary by start number:

Start 2:

- Found in 8 of 30 (26.7%) of genes in pham
- Manual Annotations of this start: 4 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_20 (AY), DillyDally_18 (singleton), Hum25_20 (FQ1), Khuang_17 (FS), Pitbull_19 (FQ1), Raqqa_20 (AY), Raya_19 (FQ2), Skyerus_19 (FQ2),

Start 3:

- Found in 16 of 30 (53.3%) of genes in pham
- Manual Annotations of this start: 8 of 17
- Called 81.2% of time when present
- Phage (with cluster) where this start called: Alatato_18 (FB), Bauer_22 (FN), BellaJr_22 (FN), BlackSpider_20 (FN), BrayBeast_19 (FB), Cassini_20 (FN), JeanClaude_19 (FB), Merpity_21 (FQ1), MrSmee_19 (FQ1), Rooter_19 (FB), Sarge_19 (FB), Shoya_18 (FB), Skitty_19 (FQ1),

Start 5:

- Found in 8 of 30 (26.7%) of genes in pham
- Manual Annotations of this start: 4 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AirForce1_26 (FL), BlackJade_28 (FL), Bubbykins_26 (UNK), Divya_24 (FL), Jinkies_27 (FL), Orkz_27 (FL), SunnyJune_25 (FL), Vitus_24 (FL),

Start 7:

- Found in 2 of 30 (6.7%) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Zucker_21 (FN),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, FS, UNK, AY, FB, FQ2, FQ1, FL, FN,

Info for manual annotations of cluster AY:

- Start number 2 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster FB:

- Start number 3 was manually annotated 4 times for cluster FB.

Info for manual annotations of cluster FL:

- Start number 5 was manually annotated 4 times for cluster FL.

Info for manual annotations of cluster FN:

- Start number 3 was manually annotated 2 times for cluster FN.
- Start number 7 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FQ1:

- Start number 2 was manually annotated 2 times for cluster FQ1.
- Start number 3 was manually annotated 2 times for cluster FQ1.

Gene Information:

Gene: AbbyDaisy_20 Start: 16528, Stop: 17505, Start Num: 2

Candidate Starts for AbbyDaisy_20:

(Start: 2 @16528 has 4 MA's), (Start: 3 @16534 has 8 MA's), (6, 16561), (12, 16612), (18, 16672), (23, 16720), (26, 16729), (27, 16732), (35, 16783), (36, 16786), (38, 16834), (41, 16876), (58, 17020), (65, 17077), (76, 17152), (80, 17185), (81, 17191), (82, 17200), (86, 17224), (96, 17338), (98, 17350), (102, 17398), (105, 17425),

Gene: AirForce1_26 Start: 19538, Stop: 20488, Start Num: 5

Candidate Starts for AirForce1_26:

(Start: 5 @19538 has 4 MA's), (8, 19556), (14, 19625), (20, 19655), (31, 19733), (32, 19742), (49, 19913), (57, 20000), (66, 20066), (70, 20096), (73, 20120), (74, 20123), (96, 20321), (102, 20375), (105, 20402), (109, 20456),

Gene: Alatato_18 Start: 14516, Stop: 15448, Start Num: 3

Candidate Starts for Alatato_18:

(Start: 3 @14516 has 8 MA's), (9, 14558), (12, 14591), (34, 14753), (37, 14801), (56, 14978), (62, 15023), (75, 15110), (81, 15155), (93, 15281), (97, 15305), (108, 15401),

Gene: Bauer_22 Start: 17164, Stop: 18111, Start Num: 3

Candidate Starts for Bauer_22:

(1, 17125), (Start: 3 @17164 has 8 MA's), (Start: 7 @17197 has 1 MA's), (9, 17206), (12, 17239), (34, 17395), (37, 17443), (44, 17524), (52, 17587), (62, 17668), (67, 17701), (69, 17716), (88, 17845), (89, 17869), (100, 17974), (101, 17995), (102, 18007), (105, 18034), (109, 18088),

Gene: BellaJr_22 Start: 17960, Stop: 18907, Start Num: 3

Candidate Starts for BellaJr_22:

(Start: 3 @17960 has 8 MA's), (9, 18002), (34, 18191), (37, 18239), (40, 18278), (44, 18320), (55, 18413), (56, 18419), (59, 18443), (61, 18452), (66, 18494), (72, 18542), (86, 18626), (89, 18662), (94, 18728), (97, 18749), (102, 18803), (105, 18830),

Gene: BlackJade_28 Start: 21416, Stop: 22345, Start Num: 5

Candidate Starts for BlackJade_28:

(Start: 5 @21416 has 4 MA's), (14, 21503), (20, 21533), (27, 21587), (49, 21785), (60, 21890), (74, 21995), (78, 22010), (87, 22082), (88, 22088), (102, 22232), (114, 22331),

Gene: BlackSpider_20 Start: 16806, Stop: 17753, Start Num: 3

Candidate Starts for BlackSpider_20:

(Start: 3 @16806 has 8 MA's), (34, 17037), (37, 17085), (40, 17124), (44, 17166), (55, 17259), (56, 17265), (59, 17289), (61, 17298), (66, 17340), (72, 17388), (86, 17472), (89, 17508), (94, 17574), (97, 17595), (99, 17604), (102, 17649), (105, 17676),

Gene: BrayBeast_19 Start: 15202, Stop: 16134, Start Num: 3

Candidate Starts for BrayBeast_19:

(Start: 3 @15202 has 8 MA's), (9, 15244), (12, 15277), (36, 15445), (37, 15487), (40, 15526), (44, 15568), (78, 15808), (86, 15874), (102, 16030), (103, 16036), (104, 16054), (106, 16060),

Gene: Bubbykins_26 Start: 22082, Stop: 23068, Start Num: 5

Candidate Starts for Bubbykins_26:

(Start: 5 @22082 has 4 MA's), (13, 22154), (15, 22172), (16, 22178), (19, 22193), (20, 22199), (30, 22271), (35, 22304), (46, 22445), (49, 22457), (51, 22481), (53, 22505), (57, 22544), (69, 22628), (71, 22658), (83, 22751), (85, 22760), (90, 22805), (92, 22856), (107, 22988), (110, 23024), (112, 23030),

Gene: Cassini_20 Start: 17043, Stop: 17990, Start Num: 3

Candidate Starts for Cassini_20:

(Start: 3 @17043 has 8 MA's), (9, 17085), (12, 17118), (24, 17226), (34, 17274), (37, 17322), (40, 17361), (44, 17403), (55, 17496), (56, 17502), (59, 17526), (61, 17535), (72, 17625), (89, 17745), (94, 17811), (97, 17832), (102, 17886), (105, 17913),

Gene: DillyDally_18 Start: 15832, Stop: 16821, Start Num: 2

Candidate Starts for DillyDally_18:

(Start: 2 @15832 has 4 MA's), (12, 15940), (17, 15994), (28, 16066), (37, 16159), (39, 16186), (50, 16252), (76, 16468), (81, 16507), (86, 16540), (97, 16663),

Gene: Divya_24 Start: 18708, Stop: 19637, Start Num: 5

Candidate Starts for Divya_24:

(4, 18699), (Start: 5 @18708 has 4 MA's), (14, 18795), (20, 18825), (49, 19077), (64, 19206), (70, 19260), (78, 19302), (88, 19380), (91, 19446), (96, 19479), (102, 19524), (113, 19620),

Gene: Hum25_20 Start: 15002, Stop: 15970, Start Num: 2

Candidate Starts for Hum25_20:

(Start: 2 @15002 has 4 MA's), (12, 15110), (29, 15245), (36, 15278), (37, 15320), (42, 15365), (45, 15398), (47, 15404), (54, 15479), (62, 15533), (69, 15581), (81, 15662), (83, 15686), (84, 15692), (98, 15821), (105, 15887), (108, 15920),

Gene: JeanClaude_19 Start: 15109, Stop: 16041, Start Num: 3

Candidate Starts for JeanClaude_19:

(Start: 3 @15109 has 8 MA's), (9, 15151), (11, 15169), (12, 15184), (36, 15352), (37, 15394), (40, 15433), (44, 15475), (63, 15622), (78, 15715), (86, 15781), (102, 15937), (103, 15943), (104, 15961), (106, 15967),

Gene: Jinkies_27 Start: 22024, Stop: 22974, Start Num: 5

Candidate Starts for Jinkies_27:

(Start: 5 @22024 has 4 MA's), (8, 22042), (14, 22111), (20, 22141), (31, 22219), (32, 22228), (49, 22399), (66, 22552), (70, 22582), (73, 22606), (74, 22609), (91, 22774), (96, 22807), (102, 22861), (105, 22888), (109, 22942),

Gene: Khuang_17 Start: 15075, Stop: 16058, Start Num: 2

Candidate Starts for Khuang_17:

(Start: 2 @15075 has 4 MA's), (10, 15147), (25, 15279), (33, 15336), (34, 15339), (35, 15342), (62, 15600), (68, 15639), (77, 15693), (84, 15756), (90, 15798), (95, 15882),

Gene: Merpity_21 Start: 14896, Stop: 15843, Start Num: 3

Candidate Starts for Merpity_21:

(Start: 3 @14896 has 8 MA's), (9, 14938), (11, 14956), (12, 14971), (22, 15067), (34, 15127), (37, 15175), (40, 15214), (44, 15256), (56, 15355), (59, 15379), (72, 15478), (86, 15562), (89, 15598), (94, 15664), (97, 15685), (98, 15691), (102, 15739), (105, 15766),

Gene: MrSmee_19 Start: 14896, Stop: 15843, Start Num: 3

Candidate Starts for MrSmee_19:

(Start: 3 @14896 has 8 MA's), (9, 14938), (11, 14956), (12, 14971), (22, 15067), (34, 15127), (37, 15175), (40, 15214), (44, 15256), (56, 15355), (59, 15379), (72, 15478), (86, 15562), (89, 15598), (94, 15664), (98, 15691), (102, 15739), (105, 15766),

Gene: Orkz_27 Start: 18804, Stop: 19733, Start Num: 5

Candidate Starts for Orkz_27:

(4, 18795), (Start: 5 @18804 has 4 MA's), (14, 18891), (20, 18921), (32, 19002), (49, 19173), (66, 19326), (87, 19470), (97, 19581), (102, 19620), (114, 19719),

Gene: Pitbull_19 Start: 14632, Stop: 15600, Start Num: 2

Candidate Starts for Pitbull_19:

(Start: 2 @14632 has 4 MA's), (12, 14740), (29, 14875), (36, 14908), (37, 14950), (42, 14995), (45, 15028), (48, 15037), (54, 15109), (62, 15163), (69, 15211), (81, 15292), (83, 15316), (84, 15322), (98, 15451), (105, 15517), (108, 15550),

Gene: Raqqa_20 Start: 16826, Stop: 17803, Start Num: 2

Candidate Starts for Raqqa_20:

(Start: 2 @16826 has 4 MA's), (Start: 3 @16832 has 8 MA's), (6, 16859), (12, 16910), (18, 16970), (23, 17018), (26, 17027), (27, 17030), (35, 17081), (36, 17084), (38, 17132), (41, 17174), (65, 17375), (76, 17450), (80, 17483), (81, 17489), (82, 17498), (86, 17522), (98, 17648), (102, 17696), (105, 17723), (111, 17783),

Gene: Raya_19 Start: 14480, Stop: 15454, Start Num: 2

Candidate Starts for Raya_19:

(Start: 2 @14480 has 4 MA's), (12, 14588), (17, 14642), (21, 14678), (48, 14885), (54, 14957), (69, 15059), (78, 15107), (84, 15170), (92, 15263), (97, 15296), (98, 15302), (105, 15377),

Gene: Rooter_19 Start: 14746, Stop: 15678, Start Num: 3

Candidate Starts for Rooter_19:

(Start: 3 @14746 has 8 MA's), (9, 14788), (11, 14806), (12, 14821), (37, 15031), (40, 15070), (44, 15112), (78, 15352), (86, 15418), (102, 15574), (103, 15580), (104, 15598), (106, 15604),

Gene: Sarge_19 Start: 15113, Stop: 16045, Start Num: 3

Candidate Starts for Sarge_19:

(Start: 3 @15113 has 8 MA's), (9, 15155), (12, 15188), (36, 15356), (37, 15398), (40, 15437), (44, 15479), (78, 15719), (86, 15785), (102, 15941), (103, 15947), (104, 15965), (106, 15971),

Gene: Shoya_18 Start: 14749, Stop: 15681, Start Num: 3

Candidate Starts for Shoya_18:

(Start: 3 @14749 has 8 MA's), (9, 14791), (11, 14809), (12, 14824), (22, 14920), (26, 14938), (36, 14992), (37, 15034), (40, 15073), (44, 15115), (78, 15355), (86, 15421), (97, 15538), (103, 15583), (104, 15601), (105, 15604),

Gene: Skitty_19 Start: 14896, Stop: 15843, Start Num: 3

Candidate Starts for Skitty_19:

(Start: 3 @14896 has 8 MA's), (9, 14938), (11, 14956), (12, 14971), (22, 15067), (34, 15127), (37, 15175), (40, 15214), (44, 15256), (56, 15355), (59, 15379), (72, 15478), (86, 15562), (89, 15598), (94, 15664), (98, 15691), (102, 15739), (105, 15766),

Gene: Skyerus_19 Start: 14480, Stop: 15454, Start Num: 2

Candidate Starts for Skyerus_19:

(Start: 2 @14480 has 4 MA's), (12, 14588), (17, 14642), (21, 14678), (48, 14885), (54, 14957), (69, 15059), (78, 15107), (84, 15170), (92, 15263), (97, 15296), (98, 15302), (105, 15377),

Gene: SunnyJune_25 Start: 20417, Stop: 21352, Start Num: 5

Candidate Starts for SunnyJune_25:

(Start: 5 @20417 has 4 MA's), (8, 20435), (14, 20504), (20, 20534), (31, 20612), (32, 20621), (49, 20792), (66, 20945), (70, 20975), (78, 21017), (96, 21194), (102, 21239), (113, 21335),

Gene: Vitus_24 Start: 20188, Stop: 21348, Start Num: 5

Candidate Starts for Vitus_24:

(Start: 5 @20188 has 4 MA's), (14, 20275), (20, 20305), (43, 20524), (49, 20557), (79, 20794), (115, 21217), (116, 21262), (117, 21292), (118, 21316),

Gene: Zucker_21 Start: 16510, Stop: 17424, Start Num: 7

Candidate Starts for Zucker_21:

(1, 16438), (Start: 3 @16477 has 8 MA's), (Start: 7 @16510 has 1 MA's), (9, 16519), (12, 16552), (34, 16708), (37, 16756), (44, 16837), (52, 16900), (62, 16981), (67, 17014), (69, 17029), (88, 17158), (89, 17182), (100, 17287), (101, 17308), (102, 17320), (105, 17347), (109, 17401),