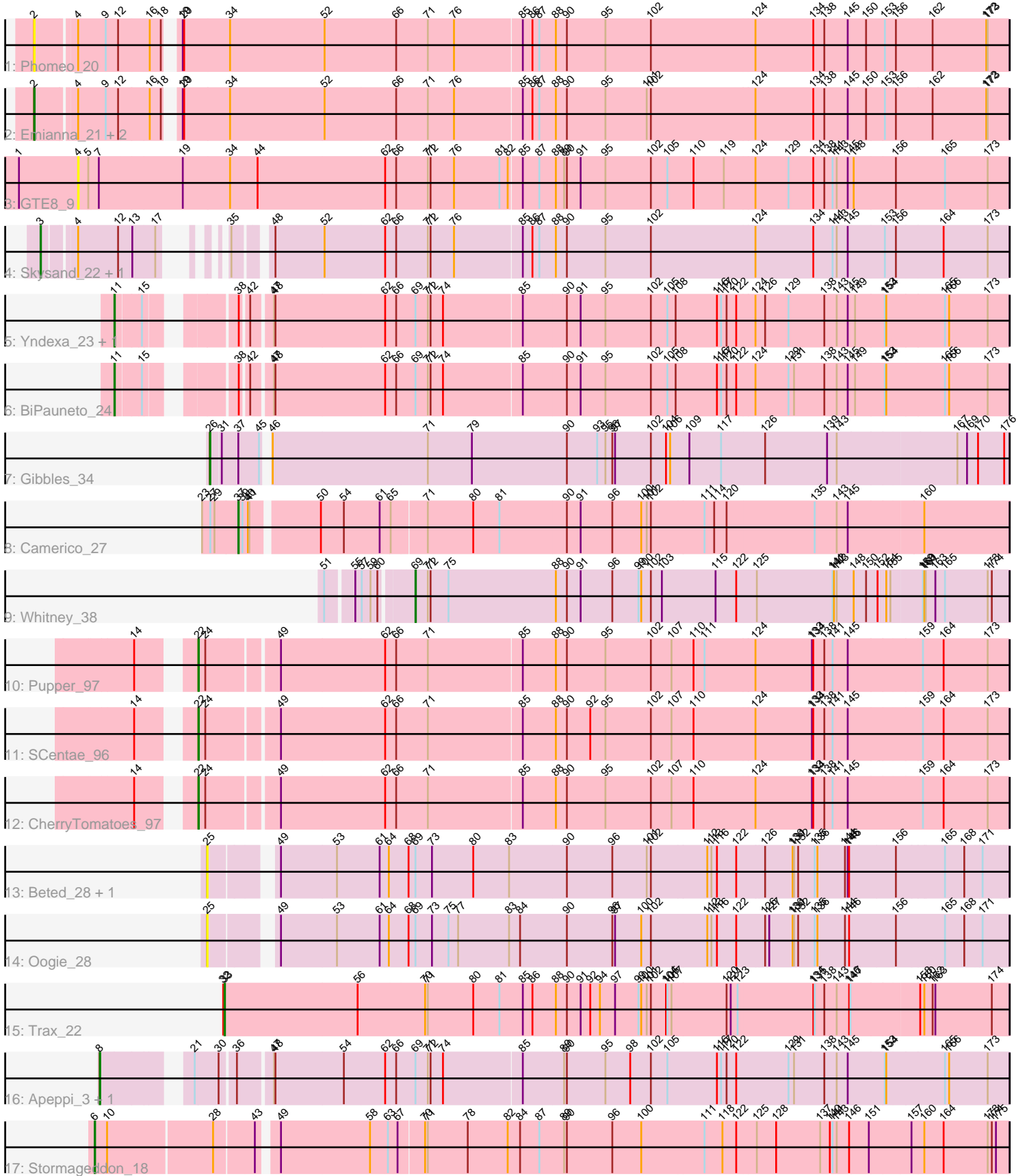


# Pham 216519



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 216519 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216519 has 23 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Phomeo\_20
- Track 2 : Emianna\_21, Kurt\_21, KidneyBean\_21
- Track 3 : GTE8\_9
- Track 4 : Skysand\_22, Float294\_22
- Track 5 : Yndexa\_23, Sukkupi\_23
- Track 6 : BiPauneto\_24
- Track 7 : Gibbles\_34
- Track 8 : Camerico\_27
- Track 9 : Whitney\_38
- Track 10 : Pupper\_97
- Track 11 : SCentae\_96
- Track 12 : CherryTomatoes\_97
- Track 13 : Beted\_28, Lenoshki\_28
- Track 14 : Oogie\_28
- Track 15 : Trax\_22
- Track 16 : Apeppi\_3, LuckyLeo\_3
- Track 17 : Stormageddon\_18

### ***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 3 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Emianna\_21, KidneyBean\_21, Kurt\_21, Phomeo\_20,

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

- 

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

- Apeppi\_3, Beted\_28, BiPauneto\_24, Camerico\_27, CherryTomatoes\_97, Float294\_22, GTE8\_9, Gibbles\_34, Lenoshki\_28, LuckyLeo\_3, Oogie\_28, Pupper\_97, SCentae\_96, Skysand\_22, Stormageddon\_18, Sukkupi\_23, Trax\_22, Whitney\_38, Yndexa\_23,

## Summary by start number:

### Start 2:

- Found in 4 of 23 ( 17.4% ) of genes in pham
- Manual Annotations of this start: 3 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Emianna\_21 (CR2), KidneyBean\_21 (CR2), Kurt\_21 (CR2), Phomeo\_20 (CR2),

### Start 3:

- Found in 2 of 23 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 2 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Float294\_22 (CR3), Skysand\_22 (CR3),

### Start 4:

- Found in 7 of 23 ( 30.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: GTE8\_9 (CR2),

### Start 6:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Stormageddon\_18 (DX),

### Start 8:

- Found in 2 of 23 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 2 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apeppi\_3 (DV), LuckyLeo\_3 (DV),

### Start 11:

- Found in 3 of 23 ( 13.0% ) of genes in pham
- Manual Annotations of this start: 3 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BiPauneto\_24 (CR4), Sukkupi\_23 (CR4), Yndexa\_23 (CR4),

### Start 22:

- Found in 3 of 23 ( 13.0% ) of genes in pham
- Manual Annotations of this start: 3 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_97 (DO), Pupper\_97 (DO), SCentae\_96 (DO),

### Start 25:

- Found in 3 of 23 ( 13.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Beted\_28 (DQ), Lenoshki\_28 (DQ), Oogie\_28 (DQ),

Start 26:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gibbles\_34 (CX),

Start 33:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trax\_22 (DU2),

Start 37:

- Found in 2 of 23 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Camerico\_27 (DF),

Start 69:

- Found in 9 of 23 ( 39.1% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Whitney\_38 (DN1),

### **Summary by clusters:**

There are 11 clusters represented in this pham: CR2, DO, CR4, CR3, DF, CX, DN1, DX, DV, DU2, DQ,

Info for manual annotations of cluster CR2:

- Start number 2 was manually annotated 3 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 3 was manually annotated 2 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 11 was manually annotated 3 times for cluster CR4.

Info for manual annotations of cluster CX:

- Start number 26 was manually annotated 1 time for cluster CX.

Info for manual annotations of cluster DF:

- Start number 37 was manually annotated 1 time for cluster DF.

Info for manual annotations of cluster DN1:

- Start number 69 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DO:

- Start number 22 was manually annotated 3 times for cluster DO.

Info for manual annotations of cluster DU2:

- Start number 33 was manually annotated 1 time for cluster DU2.

Info for manual annotations of cluster DV:

- Start number 8 was manually annotated 2 times for cluster DV.

Info for manual annotations of cluster DX:

- Start number 6 was manually annotated 1 time for cluster DX.

### **Gene Information:**

Gene: Apeppi\_3 Start: 3182, Stop: 5059, Start Num: 8

Candidate Starts for Apeppi\_3:

(Start: 8 @3182 has 2 MA's), (21, 3338), (30, 3389), (36, 3419), (47, 3488), (48, 3491), (54, 3638), (62, 3725), (66, 3746), (Start: 69 @3788 has 1 MA's), (71, 3815), (72, 3821), (74, 3848), (85, 4016), (89, 4103), (90, 4109), (95, 4193), (98, 4247), (102, 4292), (105, 4328), (116, 4436), (117, 4445), (120, 4457), (122, 4478), (129, 4589), (131, 4601), (138, 4667), (143, 4694), (145, 4718), (153, 4796), (154, 4799), (165, 4922), (166, 4931), (173, 5015),

Gene: Beted\_28 Start: 17323, Stop: 18984, Start Num: 25

Candidate Starts for Beted\_28:

(25, 17323), (49, 17437), (53, 17557), (61, 17650), (64, 17668), (68, 17704), (Start: 69 @17719 has 1 MA's), (73, 17755), (80, 17845), (83, 17923), (90, 18046), (96, 18145), (101, 18220), (102, 18229), (112, 18349), (113, 18358), (116, 18370), (122, 18412), (126, 18472), (130, 18532), (131, 18535), (132, 18544), (135, 18580), (136, 18586), (144, 18646), (145, 18652), (146, 18655), (156, 18754), (165, 18856), (168, 18898), (171, 18934),

Gene: BiPauneto\_24 Start: 9593, Stop: 11410, Start Num: 11

Candidate Starts for BiPauneto\_24:

(Start: 11 @9593 has 3 MA's), (15, 9644), (38, 9785), (42, 9800), (47, 9839), (48, 9842), (62, 10076), (66, 10097), (Start: 69 @10139 has 1 MA's), (71, 10166), (72, 10172), (74, 10199), (85, 10367), (90, 10460), (91, 10490), (95, 10544), (102, 10643), (105, 10679), (108, 10697), (116, 10787), (117, 10796), (120, 10808), (122, 10829), (124, 10868), (129, 10940), (131, 10952), (138, 11018), (143, 11045), (145, 11069), (149, 11084), (153, 11147), (154, 11150), (165, 11273), (166, 11282), (173, 11366),

Gene: Camerico\_27 Start: 32001, Stop: 33617, Start Num: 37

Candidate Starts for Camerico\_27:

(23, 31923), (27, 31941), (29, 31950), (Start: 37 @32001 has 1 MA's), (39, 32010), (40, 32022), (41, 32025), (50, 32160), (54, 32208), (61, 32286), (65, 32304), (71, 32376), (80, 32475), (81, 32532), (90, 32676), (91, 32706), (96, 32775), (100, 32838), (101, 32850), (102, 32859), (111, 32970), (114, 32991), (120, 33018), (135, 33207), (143, 33255), (145, 33279), (160, 33435),

Gene: CherryTomatoes\_97 Start: 48896, Stop: 50605, Start Num: 22

Candidate Starts for CherryTomatoes\_97:

(14, 48803), (Start: 22 @48896 has 3 MA's), (24, 48911), (49, 49052), (62, 49274), (66, 49292), (71, 49361), (85, 49562), (88, 49631), (90, 49655), (95, 49739), (102, 49838), (107, 49883), (110, 49931), (124, 50063), (133, 50186), (134, 50189), (138, 50213), (141, 50231), (145, 50264), (159, 50420), (164, 50465), (173, 50561),

Gene: Emianna\_21 Start: 10466, Stop: 12502, Start Num: 2

Candidate Starts for Emianna\_21:

(Start: 2 @10466 has 3 MA's), (4, 10547), (9, 10607), (12, 10634), (16, 10697), (18, 10721), (19, 10736), (20, 10739), (34, 10838), (52, 11042), (66, 11189), (71, 11258), (76, 11315), (85, 11459), (86, 11480), (87, 11495), (88, 11528), (90, 11552), (95, 11636), (101, 11726), (102, 11735), (124, 11960), (134, 12086), (138, 12110), (145, 12161), (150, 12200), (153, 12239), (156, 12260), (162, 12338), (172, 12455), (173, 12458),

Gene: Float294\_22 Start: 10208, Stop: 12094, Start Num: 3

Candidate Starts for Float294\_22:

(Start: 3 @10208 has 2 MA's), (4, 10265), (12, 10352), (13, 10379), (17, 10427), (35, 10469), (48, 10529), (52, 10634), (62, 10763), (66, 10781), (71, 10850), (72, 10856), (76, 10907), (85, 11051), (86, 11072), (87, 11087), (88, 11120), (90, 11144), (95, 11228), (102, 11327), (124, 11552), (134, 11678), (141, 11720), (143, 11729), (145, 11753), (153, 11831), (156, 11852), (164, 11954), (173, 12050),

Gene: GTE8\_9 Start: 3345, Stop: 5333, Start Num: 4

Candidate Starts for GTE8\_9:

(1, 3216), (4, 3345), (5, 3366), (7, 3387), (19, 3564), (34, 3666), (44, 3726), (62, 3999), (66, 4020), (71, 4089), (72, 4095), (76, 4146), (81, 4245), (82, 4263), (85, 4290), (87, 4326), (88, 4359), (89, 4377), (90, 4383), (91, 4413), (95, 4467), (102, 4566), (105, 4602), (110, 4659), (119, 4725), (124, 4791), (129, 4863), (134, 4917), (138, 4941), (141, 4959), (143, 4968), (145, 4992), (148, 5004), (156, 5091), (165, 5196), (173, 5289),

Gene: Gibbles\_34 Start: 37129, Stop: 38808, Start Num: 26

Candidate Starts for Gibbles\_34:

(Start: 26 @37129 has 1 MA's), (31, 37150), (Start: 37 @37183 has 1 MA's), (45, 37228), (46, 37234), (71, 37564), (79, 37660), (90, 37864), (93, 37930), (95, 37948), (96, 37963), (97, 37969), (102, 38047), (104, 38077), (106, 38086), (109, 38125), (117, 38194), (126, 38287), (139, 38422), (143, 38443), (167, 38695), (169, 38716), (170, 38740), (176, 38797),

Gene: KidneyBean\_21 Start: 10229, Stop: 12265, Start Num: 2

Candidate Starts for KidneyBean\_21:

(Start: 2 @10229 has 3 MA's), (4, 10310), (9, 10370), (12, 10397), (16, 10460), (18, 10484), (19, 10499), (20, 10502), (34, 10601), (52, 10805), (66, 10952), (71, 11021), (76, 11078), (85, 11222), (86, 11243), (87, 11258), (88, 11291), (90, 11315), (95, 11399), (101, 11489), (102, 11498), (124, 11723), (134, 11849), (138, 11873), (145, 11924), (150, 11963), (153, 12002), (156, 12023), (162, 12101), (172, 12218), (173, 12221),

Gene: Kurt\_21 Start: 10466, Stop: 12502, Start Num: 2

Candidate Starts for Kurt\_21:

(Start: 2 @10466 has 3 MA's), (4, 10547), (9, 10607), (12, 10634), (16, 10697), (18, 10721), (19, 10736), (20, 10739), (34, 10838), (52, 11042), (66, 11189), (71, 11258), (76, 11315), (85, 11459), (86, 11480), (87, 11495), (88, 11528), (90, 11552), (95, 11636), (101, 11726), (102, 11735), (124, 11960), (134, 12086), (138, 12110), (145, 12161), (150, 12200), (153, 12239), (156, 12260), (162, 12338), (172, 12455), (173, 12458),

Gene: Lenoshki\_28 Start: 17323, Stop: 18984, Start Num: 25

Candidate Starts for Lenoshki\_28:

(25, 17323), (49, 17437), (53, 17557), (61, 17650), (64, 17668), (68, 17704), (Start: 69 @17719 has 1 MA's), (73, 17755), (80, 17845), (83, 17923), (90, 18046), (96, 18145), (101, 18220), (102, 18229), (112, 18349), (113, 18358), (116, 18370), (122, 18412), (126, 18472), (130, 18532), (131, 18535), (132, 18544), (135, 18580), (136, 18586), (144, 18646), (145, 18652), (146, 18655), (156, 18754), (165, 18856), (168, 18898), (171, 18934),

Gene: LuckyLeo\_3 Start: 3182, Stop: 5059, Start Num: 8

Candidate Starts for LuckyLeo\_3:

(Start: 8 @3182 has 2 MA's), (21, 3338), (30, 3389), (36, 3419), (47, 3488), (48, 3491), (54, 3638), (62, 3725), (66, 3746), (Start: 69 @3788 has 1 MA's), (71, 3815), (72, 3821), (74, 3848), (85, 4016), (89, 4103), (90, 4109), (95, 4193), (98, 4247), (102, 4292), (105, 4328), (116, 4436), (117, 4445), (120, 4457), (122, 4478), (129, 4589), (131, 4601), (138, 4667), (143, 4694), (145, 4718), (153, 4796), (154, 4799), (165, 4922), (166, 4931), (173, 5015),

Gene: Oogie\_28 Start: 17349, Stop: 19010, Start Num: 25

Candidate Starts for Oogie\_28:

(25, 17349), (49, 17463), (53, 17583), (61, 17676), (64, 17694), (68, 17730), (Start: 69 @17745 has 1 MA's), (73, 17781), (75, 17817), (77, 17838), (83, 17949), (84, 17973), (90, 18072), (96, 18171), (97, 18177), (100, 18234), (102, 18255), (112, 18375), (113, 18384), (116, 18396), (122, 18438), (126, 18498), (127, 18507), (130, 18558), (131, 18561), (132, 18570), (135, 18606), (136, 18612), (144, 18672), (146, 18681), (156, 18780), (165, 18882), (168, 18924), (171, 18960),

Gene: Phomeo\_20 Start: 10116, Stop: 12152, Start Num: 2

Candidate Starts for Phomeo\_20:

(Start: 2 @10116 has 3 MA's), (4, 10197), (9, 10257), (12, 10284), (16, 10347), (18, 10371), (19, 10386), (20, 10389), (34, 10488), (52, 10692), (66, 10839), (71, 10908), (76, 10965), (85, 11109), (86, 11130), (87, 11145), (88, 11178), (90, 11202), (95, 11286), (102, 11385), (124, 11610), (134, 11736), (138, 11760), (145, 11811), (150, 11850), (153, 11889), (156, 11910), (162, 11988), (172, 12105), (173, 12108),

Gene: Pupper\_97 Start: 49017, Stop: 50726, Start Num: 22

Candidate Starts for Pupper\_97:

(14, 48924), (Start: 22 @49017 has 3 MA's), (24, 49032), (49, 49173), (62, 49395), (66, 49413), (71, 49482), (85, 49683), (88, 49752), (90, 49776), (95, 49860), (102, 49959), (107, 50004), (110, 50052), (111, 50076), (124, 50184), (133, 50307), (134, 50310), (138, 50334), (141, 50352), (145, 50385), (159, 50541), (164, 50586), (173, 50682),

Gene: SCentae\_96 Start: 49163, Stop: 50872, Start Num: 22

Candidate Starts for SCentae\_96:

(14, 49070), (Start: 22 @49163 has 3 MA's), (24, 49178), (49, 49319), (62, 49541), (66, 49559), (71, 49628), (85, 49829), (88, 49898), (90, 49922), (92, 49973), (95, 50006), (102, 50105), (107, 50150), (110, 50198), (124, 50330), (133, 50453), (134, 50456), (138, 50480), (141, 50498), (145, 50531), (159, 50687), (164, 50732), (173, 50828),

Gene: Skysand\_22 Start: 10210, Stop: 12096, Start Num: 3

Candidate Starts for Skysand\_22:

(Start: 3 @10210 has 2 MA's), (4, 10267), (12, 10354), (13, 10381), (17, 10429), (35, 10471), (48, 10531), (52, 10636), (62, 10765), (66, 10783), (71, 10852), (72, 10858), (76, 10909), (85, 11053), (86, 11074), (87, 11089), (88, 11122), (90, 11146), (95, 11230), (102, 11329), (124, 11554), (134, 11680), (141, 11722), (143, 11731), (145, 11755), (153, 11833), (156, 11854), (164, 11956), (173, 12052),

Gene: Stormageddon\_18 Start: 21743, Stop: 23659, Start Num: 6

Candidate Starts for Stormageddon\_18:

(Start: 6 @21743 has 1 MA's), (10, 21770), (28, 21992), (43, 22073), (49, 22106), (58, 22295), (63, 22331), (67, 22349), (70, 22400), (71, 22406), (78, 22493), (82, 22580), (84, 22607), (87, 22649), (89, 22703), (90, 22709), (96, 22808), (100, 22871), (111, 23006), (118, 23045), (122, 23075), (125, 23117), (128, 23159), (137, 23255), (140, 23276), (141, 23282), (143, 23291), (146, 23318), (151, 23360), (157, 23450), (160, 23477), (164, 23519), (173, 23615), (174, 23624), (175, 23633),

Gene: Sukkupi\_23 Start: 9484, Stop: 11301, Start Num: 11

Candidate Starts for Sukkupi\_23:

(Start: 11 @9484 has 3 MA's), (15, 9535), (38, 9676), (42, 9691), (47, 9730), (48, 9733), (62, 9967), (66, 9988), (Start: 69 @10030 has 1 MA's), (71, 10057), (72, 10063), (74, 10090), (85, 10258), (90, 10351), (91, 10381), (95, 10435), (102, 10534), (105, 10570), (108, 10588), (116, 10678), (117, 10687), (120, 10699), (122, 10720), (124, 10759), (126, 10780), (129, 10831), (138, 10909), (143, 10936), (145, 10960), (149, 10975), (153, 11038), (154, 11041), (165, 11164), (166, 11173), (173, 11257),

Gene: Trax\_22 Start: 12887, Stop: 14566, Start Num: 33

Candidate Starts for Trax\_22:

(32, 12884), (Start: 33 @12887 has 1 MA's), (56, 13175), (70, 13316), (71, 13322), (80, 13421), (81, 13478), (85, 13529), (86, 13550), (88, 13598), (90, 13622), (91, 13652), (92, 13673), (94, 13694), (97, 13727), (99, 13778), (100, 13784), (101, 13796), (102, 13805), (104, 13838), (105, 13841), (107, 13850), (120, 13967), (121, 13976), (123, 13991), (134, 14153), (135, 14156), (138, 14174), (143, 14201), (146, 14228), (147, 14231), (158, 14372), (160, 14381), (162, 14399), (163, 14405), (174, 14528),

Gene: Whitney\_38 Start: 29488, Stop: 30759, Start Num: 69

Candidate Starts for Whitney\_38:

(51, 29329), (55, 29383), (57, 29395), (59, 29413), (60, 29428), (Start: 69 @29488 has 1 MA's), (71, 29515), (72, 29521), (75, 29560), (88, 29791), (90, 29815), (91, 29845), (96, 29914), (99, 29971), (100, 29977), (102, 29998), (103, 30019), (115, 30133), (122, 30178), (125, 30220), (141, 30385), (142, 30388), (143, 30394), (148, 30430), (150, 30457), (152, 30481), (154, 30499), (155, 30508), (159, 30571), (160, 30574), (161, 30577), (163, 30598), (165, 30619), (173, 30712), (174, 30721),

Gene: Yndexa\_23 Start: 9484, Stop: 11301, Start Num: 11

Candidate Starts for Yndexa\_23:

(Start: 11 @9484 has 3 MA's), (15, 9535), (38, 9676), (42, 9691), (47, 9730), (48, 9733), (62, 9967), (66, 9988), (Start: 69 @10030 has 1 MA's), (71, 10057), (72, 10063), (74, 10090), (85, 10258), (90, 10351), (91, 10381), (95, 10435), (102, 10534), (105, 10570), (108, 10588), (116, 10678), (117, 10687), (120, 10699), (122, 10720), (124, 10759), (126, 10780), (129, 10831), (138, 10909), (143, 10936), (145, 10960), (149, 10975), (153, 11038), (154, 11041), (165, 11164), (166, 11173), (173, 11257),