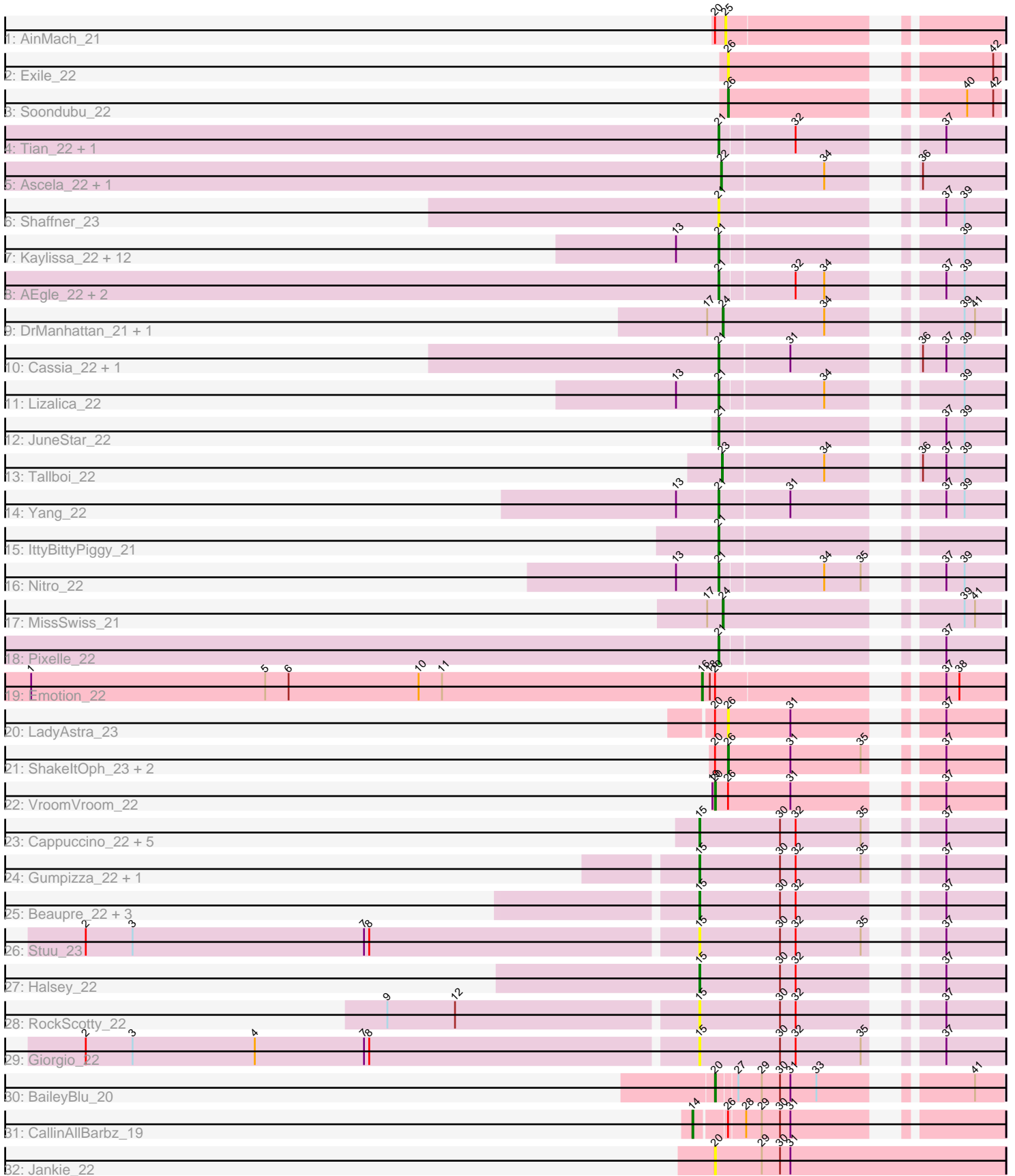


Pham 224581



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 224581 Report

This analysis was run 03/28/25 on database version 593.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 224581 has 61 members, 18 are drafts.

Phages represented in each track:

- Track 1 : AinMach\_21
- Track 2 : Exile\_22
- Track 3 : Soondubu\_22
- Track 4 : Tian\_22, Amyev\_22
- Track 5 : Ascela\_22, Iter\_22
- Track 6 : Shaffner\_23
- Track 7 : Kaylissa\_22, Mudpuppy\_22, Tutumahutu\_22, AGrandiflora\_23, Tbone\_22, YesChef\_22, Powerpuff\_22, Warda\_22, Joemato\_22, JohnDoe\_22, Cyan\_22, Lego\_22, Simpson\_24
- Track 8 : AEgle\_22, Turab\_22, Adumb2043\_22
- Track 9 : DrManhattan\_21, Adolin\_21
- Track 10 : Cassia\_22, Pumpkins\_22
- Track 11 : Lizalica\_22
- Track 12 : JuneStar\_22
- Track 13 : Tallboi\_22
- Track 14 : Yang\_22
- Track 15 : IttyBittyPiggy\_21
- Track 16 : Nitro\_22
- Track 17 : MissSwiss\_21
- Track 18 : Pixelle\_22
- Track 19 : Emotion\_22
- Track 20 : LadyAstra\_23
- Track 21 : ShakeltOph\_23, JasmineDragon\_22, MiniMommy\_22
- Track 22 : VroomVroom\_22
- Track 23 : Cappuccino\_22, Sabourin\_22, Kalimba\_22, Gambol\_22, Sooty\_22, Donkey\_22
- Track 24 : Gumpizza\_22, Mysterium\_22
- Track 25 : Beaupre\_22, SpecialK\_22, Ashes\_22, Moss\_22
- Track 26 : Stuu\_23
- Track 27 : Halsey\_22
- Track 28 : RockScotty\_22
- Track 29 : Giorgio\_22
- Track 30 : BaileyBlu\_20

- Track 31 : CallinAllBarbz\_19
- Track 32 : Jankie\_22

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

The start number called the most often in the published annotations is 21, it was called in 21 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle\_22, AGrandiflora\_23, Adumb2043\_22, Amyev\_22, Cassia\_22, Cyan\_22, IttyBittyPiggy\_21, Joemato\_22, JohnDoe\_22, JuneStar\_22, Kaylissa\_22, Lego\_22, Lizalica\_22, Mudpuppy\_22, Nitro\_22, Pixelle\_22, Powerpuff\_22, Pumpkins\_22, Shaffner\_23, Simpson\_24, Tbone\_22, Tian\_22, Turab\_22, Tutumahutu\_22, Warda\_22, Yang\_22, YesChef\_22,

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

- 

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

- Adolin\_21, AinMach\_21, Ascela\_22, Ashes\_22, BaileyBlu\_20, Beaupre\_22, CallinAllBarbz\_19, Cappuccino\_22, Donkey\_22, DrManhattan\_21, Emotion\_22, Exile\_22, Gambol\_22, Giorgio\_22, Gumpizza\_22, Halsey\_22, Iter\_22, Jankie\_22, JasmineDragon\_22, Kalimba\_22, LadyAstra\_23, MiniMommy\_22, MissSwiss\_21, Moss\_22, Mysterium\_22, RockScotty\_22, Sabourin\_22, ShakeltOph\_23, Soondubu\_22, Sooty\_22, SpecialK\_22, Stuu\_23, Tallboi\_22, VroomVroom\_22,

**Summary by start number:**

Start 14:

- Found in 1 of 61 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CallinAllBarbz\_19 (FP),

Start 15:

- Found in 16 of 61 ( 26.2% ) of genes in pham
- Manual Annotations of this start: 10 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ashes\_22 (AZ5), Beaupre\_22 (AZ5), Cappuccino\_22 (AZ5), Donkey\_22 (AZ5), Gambol\_22 (AZ5), Giorgio\_22 (AZ5), Gumpizza\_22 (AZ5), Halsey\_22 (AZ5), Kalimba\_22 (AZ5), Moss\_22 (AZ5), Mysterium\_22 (AZ5), RockScotty\_22 (AZ5), Sabourin\_22 (AZ5), Sooty\_22 (AZ5), SpecialK\_22 (AZ5), Stuu\_23 (AZ5),

Start 16:

- Found in 1 of 61 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Emotion\_22 (AZ4),

Start 20:

- Found in 9 of 61 ( 14.8% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BaileyBlu\_20 (FP), Jankie\_22 (FP), VroomVroom\_22 (AZ4),

Start 21:

- Found in 27 of 61 ( 44.3% ) of genes in pham
- Manual Annotations of this start: 21 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle\_22 (AZ1), AGrandiflora\_23 (AZ1), Adumb2043\_22 (AZ1), Amyev\_22 (AZ1), Cassia\_22 (AZ1), Cyan\_22 (AZ1), IttyBittyPiggy\_21 (AZ1), Joemato\_22 (AZ1), JohnDoe\_22 (AZ1), JuneStar\_22 (AZ1), Kaylissa\_22 (AZ1), Lego\_22 (AZ1), Lizalica\_22 (AZ1), Mudpuppy\_22 (AZ1), Nitro\_22 (AZ1), Pixelle\_22 (AZ1), Powerpuff\_22 (AZ1), Pumpkins\_22 (AZ1), Shaffner\_23 (AZ1), Simpson\_24 (AZ1), Tbone\_22 (AZ1), Tian\_22 (AZ1), Turab\_22 (AZ1), Tutumahutu\_22 (AZ1), Warda\_22 (AZ1), Yang\_22 (AZ1), YesChef\_22 (AZ1),

Start 22:

- Found in 2 of 61 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ascela\_22 (AZ1), Iter\_22 (AZ1),

Start 23:

- Found in 1 of 61 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tallboi\_22 (AZ1),

Start 24:

- Found in 3 of 61 ( 4.9% ) of genes in pham
- Manual Annotations of this start: 3 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin\_21 (AZ1), DrManhattan\_21 (AZ1), MissSwiss\_21 (AZ1),

Start 25:

- Found in 1 of 61 ( 1.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AinMach\_21 (AZ),

Start 26:

- Found in 8 of 61 ( 13.1% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Exile\_22 (AZ), JasmineDragon\_22 (AZ4), LadyAstra\_23 (AZ4), MiniMommy\_22 (AZ4), ShakeItOph\_23 (AZ4), Soondubu\_22 (AZ),

**Summary by clusters:**

There are 5 clusters represented in this pham: FP, AZ1, AZ, AZ4, AZ5,

Info for manual annotations of cluster AZ:

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

Info for manual annotations of cluster AZ1:

- Start number 21 was manually annotated 21 times for cluster AZ1.
- Start number 22 was manually annotated 2 times for cluster AZ1.
- Start number 23 was manually annotated 1 time for cluster AZ1.
- Start number 24 was manually annotated 3 times for cluster AZ1.

Info for manual annotations of cluster AZ4:

- Start number 16 was manually annotated 1 time for cluster AZ4.
- Start number 20 was manually annotated 1 time for cluster AZ4.
- Start number 26 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster AZ5:

- Start number 15 was manually annotated 10 times for cluster AZ5.

Info for manual annotations of cluster FP:

- Start number 14 was manually annotated 1 time for cluster FP.
- Start number 20 was manually annotated 1 time for cluster FP.

### ***Gene Information:***

Gene: AEgle\_22 Start: 19269, Stop: 19538, Start Num: 21

Candidate Starts for AEgle\_22:

(Start: 21 @19269 has 21 MA's), (32, 19350), (34, 19383), (37, 19473), (39, 19494),

Gene: AGrandiflora\_23 Start: 19367, Stop: 19636, Start Num: 21

Candidate Starts for AGrandiflora\_23:

(13, 19325), (Start: 21 @19367 has 21 MA's), (39, 19592),

Gene: Adolin\_21 Start: 17721, Stop: 17990, Start Num: 24

Candidate Starts for Adolin\_21:

(17, 17703), (Start: 24 @17721 has 3 MA's), (34, 17838), (39, 17949), (41, 17961),

Gene: Adumb2043\_22 Start: 19268, Stop: 19537, Start Num: 21

Candidate Starts for Adumb2043\_22:

(Start: 21 @19268 has 21 MA's), (32, 19349), (34, 19382), (37, 19472), (39, 19493),

Gene: AinMach\_21 Start: 18975, Stop: 19241, Start Num: 25

Candidate Starts for AinMach\_21:

(Start: 20 @18963 has 2 MA's), (25, 18975),

Gene: Amyev\_22 Start: 19659, Stop: 19928, Start Num: 21

Candidate Starts for Amyev\_22:

(Start: 21 @19659 has 21 MA's), (32, 19740), (37, 19863),

Gene: Ascela\_22 Start: 19279, Stop: 19548, Start Num: 22

Candidate Starts for Ascela\_22:

(Start: 22 @19279 has 2 MA's), (34, 19393), (36, 19456),

Gene: Ashes\_22 Start: 17953, Stop: 18252, Start Num: 15

Candidate Starts for Ashes\_22:

(Start: 15 @17953 has 10 MA's), (30, 18046), (32, 18064), (37, 18187),

Gene: BaileyBlu\_20 Start: 17646, Stop: 17921, Start Num: 20

Candidate Starts for BaileyBlu\_20:

(Start: 20 @17646 has 2 MA's), (27, 17667), (29, 17694), (30, 17715), (31, 17727), (33, 17757), (41, 17889),

Gene: Beaupre\_22 Start: 17954, Stop: 18253, Start Num: 15

Candidate Starts for Beaupre\_22:

(Start: 15 @17954 has 10 MA's), (30, 18047), (32, 18065), (37, 18188),

Gene: CallinAllBarbz\_19 Start: 17627, Stop: 17926, Start Num: 14

Candidate Starts for CallinAllBarbz\_19:

(Start: 14 @17627 has 1 MA's), (Start: 26 @17660 has 2 MA's), (28, 17678), (29, 17696), (30, 17717), (31, 17729),

Gene: Cappuccino\_22 Start: 17864, Stop: 18163, Start Num: 15

Candidate Starts for Cappuccino\_22:

(Start: 15 @17864 has 10 MA's), (30, 17957), (32, 17975), (35, 18050), (37, 18098),

Gene: Cassia\_22 Start: 19707, Stop: 19979, Start Num: 21

Candidate Starts for Cassia\_22:

(Start: 21 @19707 has 21 MA's), (31, 19785), (36, 19887), (37, 19914), (39, 19935),

Gene: Cyan\_22 Start: 19415, Stop: 19684, Start Num: 21

Candidate Starts for Cyan\_22:

(13, 19373), (Start: 21 @19415 has 21 MA's), (39, 19640),

Gene: Donkey\_22 Start: 17864, Stop: 18163, Start Num: 15

Candidate Starts for Donkey\_22:

(Start: 15 @17864 has 10 MA's), (30, 17957), (32, 17975), (35, 18050), (37, 18098),

Gene: DrManhattan\_21 Start: 17711, Stop: 17980, Start Num: 24

Candidate Starts for DrManhattan\_21:

(17, 17693), (Start: 24 @17711 has 3 MA's), (34, 17828), (39, 17939), (41, 17951),

Gene: Emotion\_22 Start: 19071, Stop: 19367, Start Num: 16

Candidate Starts for Emotion\_22:

(1, 18297), (5, 18567), (6, 18594), (10, 18744), (11, 18771), (Start: 16 @19071 has 1 MA's), (18, 19080), (Start: 20 @19086 has 2 MA's), (37, 19299), (38, 19314),

Gene: Exile\_22 Start: 21578, Stop: 21841, Start Num: 26

Candidate Starts for Exile\_22:

(Start: 26 @21578 has 2 MA's), (42, 21833),

Gene: Gambol\_22 Start: 17864, Stop: 18163, Start Num: 15

Candidate Starts for Gambol\_22:

(Start: 15 @17864 has 10 MA's), (30, 17957), (32, 17975), (35, 18050), (37, 18098),

Gene: Giorgio\_22 Start: 17961, Stop: 18260, Start Num: 15

Candidate Starts for Giorgio\_22:

(2, 17265), (3, 17319), (4, 17460), (7, 17586), (8, 17592), (Start: 15 @17961 has 10 MA's), (30, 18054), (32, 18072), (35, 18147), (37, 18195),

Gene: Gumpizza\_22 Start: 17954, Stop: 18253, Start Num: 15

Candidate Starts for Gumpizza\_22:

(Start: 15 @17954 has 10 MA's), (30, 18047), (32, 18065), (35, 18140), (37, 18188),

Gene: Halsey\_22 Start: 17958, Stop: 18257, Start Num: 15

Candidate Starts for Halsey\_22:

(Start: 15 @17958 has 10 MA's), (30, 18051), (32, 18069), (37, 18192),

Gene: Iter\_22 Start: 19279, Stop: 19548, Start Num: 22

Candidate Starts for Iter\_22:

(Start: 22 @19279 has 2 MA's), (34, 19393), (36, 19456),

Gene: IttyBittyPiggy\_21 Start: 17803, Stop: 18075, Start Num: 21

Candidate Starts for IttyBittyPiggy\_21:

(Start: 21 @17803 has 21 MA's),

Gene: Jankie\_22 Start: 17870, Stop: 18205, Start Num: 20

Candidate Starts for Jankie\_22:

(Start: 20 @17870 has 2 MA's), (29, 17924), (30, 17945), (31, 17957),

Gene: JasmineDragon\_22 Start: 18506, Stop: 18772, Start Num: 26

Candidate Starts for JasmineDragon\_22:

(Start: 20 @18491 has 2 MA's), (Start: 26 @18506 has 2 MA's), (31, 18578), (35, 18659), (37, 18707),

Gene: Joemato\_22 Start: 19415, Stop: 19684, Start Num: 21

Candidate Starts for Joemato\_22:

(13, 19373), (Start: 21 @19415 has 21 MA's), (39, 19640),

Gene: JohnDoe\_22 Start: 19410, Stop: 19679, Start Num: 21

Candidate Starts for JohnDoe\_22:

(13, 19368), (Start: 21 @19410 has 21 MA's), (39, 19635),

Gene: JuneStar\_22 Start: 20113, Stop: 20385, Start Num: 21

Candidate Starts for JuneStar\_22:

(Start: 21 @20113 has 21 MA's), (37, 20320), (39, 20341),

Gene: Kalimba\_22 Start: 17865, Stop: 18164, Start Num: 15

Candidate Starts for Kalimba\_22:

(Start: 15 @17865 has 10 MA's), (30, 17958), (32, 17976), (35, 18051), (37, 18099),

Gene: Kaylissa\_22 Start: 19416, Stop: 19685, Start Num: 21

Candidate Starts for Kaylissa\_22:

(13, 19374), (Start: 21 @19416 has 21 MA's), (39, 19641),

Gene: LadyAstra\_23 Start: 18510, Stop: 18779, Start Num: 26

Candidate Starts for LadyAstra\_23:

(Start: 20 @18495 has 2 MA's), (Start: 26 @18510 has 2 MA's), (31, 18582), (37, 18711),

Gene: Lego\_22 Start: 19370, Stop: 19639, Start Num: 21

Candidate Starts for Lego\_22:

(13, 19328), (Start: 21 @19370 has 21 MA's), (39, 19595),

Gene: Lizalica\_22 Start: 19400, Stop: 19669, Start Num: 21

Candidate Starts for Lizalica\_22:

(13, 19358), (Start: 21 @19400 has 21 MA's), (34, 19514), (39, 19625),

Gene: MiniMommy\_22 Start: 18507, Stop: 18773, Start Num: 26

Candidate Starts for MiniMommy\_22:

(Start: 20 @18492 has 2 MA's), (Start: 26 @18507 has 2 MA's), (31, 18579), (35, 18660), (37, 18708),

Gene: MissSwiss\_21 Start: 17769, Stop: 18038, Start Num: 24

Candidate Starts for MissSwiss\_21:

(17, 17751), (Start: 24 @17769 has 3 MA's), (39, 17997), (41, 18009),

Gene: Moss\_22 Start: 17953, Stop: 18252, Start Num: 15

Candidate Starts for Moss\_22:

(Start: 15 @17953 has 10 MA's), (30, 18046), (32, 18064), (37, 18187),

Gene: Mudpuppy\_22 Start: 19413, Stop: 19682, Start Num: 21

Candidate Starts for Mudpuppy\_22:

(13, 19371), (Start: 21 @19413 has 21 MA's), (39, 19638),

Gene: Mysterium\_22 Start: 17954, Stop: 18253, Start Num: 15

Candidate Starts for Mysterium\_22:

(Start: 15 @17954 has 10 MA's), (30, 18047), (32, 18065), (35, 18140), (37, 18188),

Gene: Nitro\_22 Start: 19269, Stop: 19538, Start Num: 21

Candidate Starts for Nitro\_22:

(13, 19227), (Start: 21 @19269 has 21 MA's), (34, 19383), (35, 19425), (37, 19473), (39, 19494),

Gene: Pixelle\_22 Start: 19662, Stop: 19931, Start Num: 21

Candidate Starts for Pixelle\_22:

(Start: 21 @19662 has 21 MA's), (37, 19866),

Gene: Powerpuff\_22 Start: 19421, Stop: 19690, Start Num: 21

Candidate Starts for Powerpuff\_22:

(13, 19379), (Start: 21 @19421 has 21 MA's), (39, 19646),

Gene: Pumpkins\_22 Start: 20140, Stop: 20412, Start Num: 21

Candidate Starts for Pumpkins\_22:

(Start: 21 @20140 has 21 MA's), (31, 20218), (36, 20320), (37, 20347), (39, 20368),

Gene: RockScotty\_22 Start: 17930, Stop: 18229, Start Num: 15

Candidate Starts for RockScotty\_22:

(9, 17582), (12, 17660), (Start: 15 @17930 has 10 MA's), (30, 18023), (32, 18041), (37, 18164),

Gene: Sabourin\_22 Start: 17863, Stop: 18162, Start Num: 15

Candidate Starts for Sabourin\_22:

(Start: 15 @17863 has 10 MA's), (30, 17956), (32, 17974), (35, 18049), (37, 18097),



Gene: Shaffner\_23 Start: 20112, Stop: 20384, Start Num: 21

Candidate Starts for Shaffner\_23:

(Start: 21 @20112 has 21 MA's), (37, 20319), (39, 20340),

Gene: ShakeltOph\_23 Start: 18506, Stop: 18772, Start Num: 26

Candidate Starts for ShakeltOph\_23:

(Start: 20 @18491 has 2 MA's), (Start: 26 @18506 has 2 MA's), (31, 18578), (35, 18659), (37, 18707),

Gene: Simpson\_24 Start: 19415, Stop: 19684, Start Num: 21

Candidate Starts for Simpson\_24:

(13, 19373), (Start: 21 @19415 has 21 MA's), (39, 19640),

Gene: Soondubu\_22 Start: 21582, Stop: 21845, Start Num: 26

Candidate Starts for Soondubu\_22:

(Start: 26 @21582 has 2 MA's), (40, 21807), (42, 21837),

Gene: Sooty\_22 Start: 17866, Stop: 18165, Start Num: 15

Candidate Starts for Sooty\_22:

(Start: 15 @17866 has 10 MA's), (30, 17959), (32, 17977), (35, 18052), (37, 18100),

Gene: SpecialK\_22 Start: 17860, Stop: 18159, Start Num: 15

Candidate Starts for SpecialK\_22:

(Start: 15 @17860 has 10 MA's), (30, 17953), (32, 17971), (37, 18094),

Gene: Stuu\_23 Start: 17953, Stop: 18252, Start Num: 15

Candidate Starts for Stuu\_23:

(2, 17257), (3, 17311), (7, 17578), (8, 17584), (Start: 15 @17953 has 10 MA's), (30, 18046), (32, 18064), (35, 18139), (37, 18187),

Gene: Tallboi\_22 Start: 19248, Stop: 19517, Start Num: 23

Candidate Starts for Tallboi\_22:

(Start: 23 @19248 has 1 MA's), (34, 19362), (36, 19425), (37, 19452), (39, 19473),

Gene: Tbone\_22 Start: 19420, Stop: 19689, Start Num: 21

Candidate Starts for Tbone\_22:

(13, 19378), (Start: 21 @19420 has 21 MA's), (39, 19645),

Gene: Tian\_22 Start: 19659, Stop: 19928, Start Num: 21

Candidate Starts for Tian\_22:

(Start: 21 @19659 has 21 MA's), (32, 19740), (37, 19863),

Gene: Turab\_22 Start: 19268, Stop: 19537, Start Num: 21

Candidate Starts for Turab\_22:

(Start: 21 @19268 has 21 MA's), (32, 19349), (34, 19382), (37, 19472), (39, 19493),

Gene: Tutumahutu\_22 Start: 19421, Stop: 19690, Start Num: 21

Candidate Starts for Tutumahutu\_22:

(13, 19379), (Start: 21 @19421 has 21 MA's), (39, 19646),

Gene: VroomVroom\_22 Start: 18499, Stop: 18783, Start Num: 20

Candidate Starts for VroomVroom\_22:

(19, 18496), (Start: 20 @18499 has 2 MA's), (Start: 26 @18514 has 2 MA's), (31, 18586), (37, 18715),

Gene: Warda\_22 Start: 19412, Stop: 19681, Start Num: 21  
Candidate Starts for Warda\_22:  
(13, 19370), (Start: 21 @19412 has 21 MA's), (39, 19637),

Gene: Yang\_22 Start: 19406, Stop: 19678, Start Num: 21  
Candidate Starts for Yang\_22:  
(13, 19364), (Start: 21 @19406 has 21 MA's), (31, 19484), (37, 19613), (39, 19634),

Gene: YesChef\_22 Start: 19421, Stop: 19690, Start Num: 21  
Candidate Starts for YesChef\_22:  
(13, 19379), (Start: 21 @19421 has 21 MA's), (39, 19646),