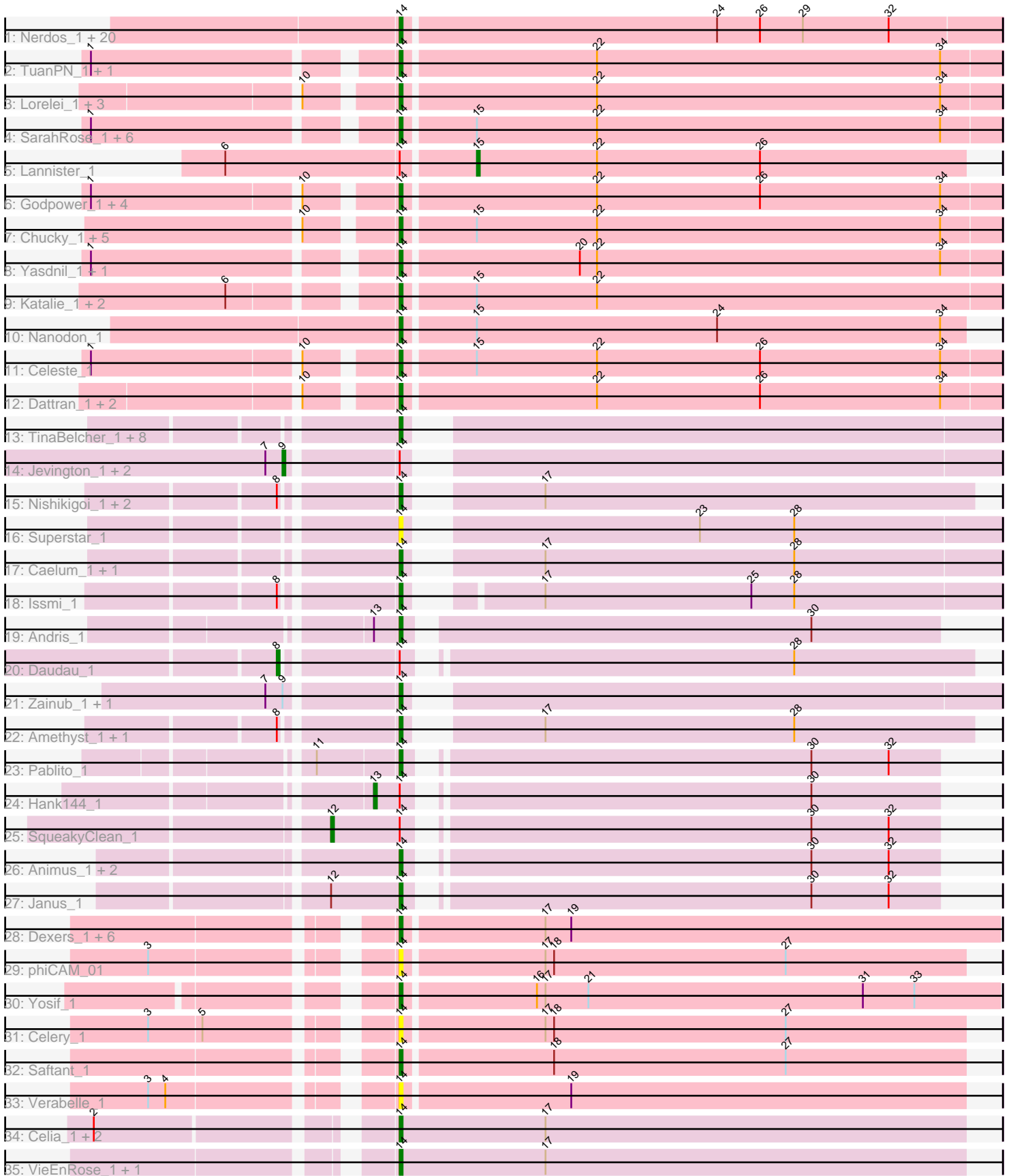


Pham 193875



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 193875 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193875 has 105 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Nerdos\_1, SunsetPointe\_1, Oliynyk\_1, Leviticus\_1, BeardedLady\_1, Bovely\_1, Jash\_1, BryanRecycles\_1, Phettuccine\_1, Aaronocolus\_1, Legacy\_1, Unstoppable\_1, EnochSoames\_1, Izzy\_1, Ozzie\_1, Hydra\_1, Indigo\_1, Eddasa\_1, Esperer\_1, Caliburn\_1, Rusticus\_1
- Track 2 : TuanPN\_1, Ejemplo\_1
- Track 3 : Lorelei\_1, Sujidade\_1, Nabi\_1, Rana\_1
- Track 4 : SarahRose\_1, Snorlax\_1, Asten\_1, BarryBee\_1, Hippo\_1, Emaanora\_1, Whatever\_1
- Track 5 : Lannister\_1
- Track 6 : Godpower\_1, Zemlya\_1, Brataylor\_1, Danzina\_1, Lika\_1
- Track 7 : Chucky\_1, OzzyJ\_1, Triste\_1, TagerPhighter\_1, Dwayne\_1, Werner\_1
- Track 8 : Yasdnil\_1, Maneekul\_1
- Track 9 : Katalie\_1, South40\_1, RedBear\_1
- Track 10 : Nanodon\_1
- Track 11 : Celeste\_1
- Track 12 : Dattran\_1, Goby\_1, Toma\_1
- Track 13 : TinaBelcher\_1, BartholomewSD\_1, Loofah\_1, Alvy\_1, Bowden\_1, Paedore\_1, TrvxScott\_1, Omar\_1, Thestral\_1
- Track 14 : Jevington\_1, Paolo\_1, Puginator\_1
- Track 15 : Nishikigoi\_1, Haizum\_1, Tefunt\_1
- Track 16 : Superstar\_1
- Track 17 : Caelum\_1, ELB20\_01
- Track 18 : Issmi\_1
- Track 19 : Andris\_1
- Track 20 : Daudau\_1
- Track 21 : Zainub\_1, Marav\_1
- Track 22 : Amethyst\_1, Diane\_1
- Track 23 : Pablito\_1
- Track 24 : Hank144\_1
- Track 25 : SqueakyClean\_1
- Track 26 : Animus\_1, Triumph\_1, GirlDinner\_1
- Track 27 : Janus\_1
- Track 28 : Dexas\_1, Provolone\_1, Kaine\_1, ElGato\_1, Conan\_1, Alsaber\_1, Pavo\_1
- Track 29 : phiCAM\_01
- Track 30 : Yosif\_1
- Track 31 : Celery\_1

- Track 32 : Saftant\_1
- Track 33 : Verabelle\_1
- Track 34 : Celia\_1, Urza\_1, Itza\_1
- Track 35 : VieEnRose\_1, Vanseggelen\_1

**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 90 of the 97 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aaronocolus\_1, Alsaber\_1, Alvy\_1, Amethyst\_1, Andris\_1, Animus\_1, Asten\_1, BarryBee\_1, BartholomewSD\_1, BeardedLady\_1, Bovely\_1, Bowden\_1, Brataylor\_1, BryanRecycles\_1, Caelum\_1, Caliburn\_1, Celery\_1, Celeste\_1, Celia\_1, Chucky\_1, Conan\_1, Danzina\_1, Dattran\_1, Dexers\_1, Diane\_1, Dwayne\_1, ELB20\_01, Eddasa\_1, Ejemplo\_1, ElGato\_1, Emaanora\_1, EnochSoames\_1, Esperer\_1, GirlDinner\_1, Goby\_1, Godpower\_1, Haizum\_1, Hippo\_1, Hydra\_1, Indigo\_1, Issmi\_1, Itza\_1, Izzy\_1, Janus\_1, Jash\_1, Kaine\_1, Katalie\_1, Legacy\_1, Leviticus\_1, Lika\_1, Loofah\_1, Lorelei\_1, Maneekul\_1, Marav\_1, Nabi\_1, Nanodon\_1, Nerdos\_1, Nishikigoi\_1, Oliynyk\_1, Omar\_1, Ozzie\_1, OzzyJ\_1, Pablito\_1, Paedore\_1, Pavo\_1, Phettuccine\_1, Provolone\_1, Rana\_1, RedBear\_1, Rusticus\_1, Saftant\_1, SarahRose\_1, Snorlax\_1, South40\_1, Sujidade\_1, SunsetPointe\_1, Superstar\_1, TagePhighter\_1, Tefunt\_1, Thestral\_1, TinaBelcher\_1, Toma\_1, Triste\_1, Triumph\_1, TrvxScott\_1, TuanPN\_1, Unstoppable\_1, Urza\_1, Vanseggelen\_1, Verabelle\_1, VieEnRose\_1, Werner\_1, Whatever\_1, Yasdnil\_1, Yosif\_1, Zainub\_1, Zemlya\_1, phiCAM\_01,

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

- Daudau\_1, Hank144\_1, Jevington\_1, Lannister\_1, Paolo\_1, Puginator\_1, SqueakyClean\_1,

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

- 

**Summary by start number:**

Start 8:

- Found in 7 of 105 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 1 of 97
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Daudau\_1 (BD2),

Start 9:

- Found in 5 of 105 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 3 of 97
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Jevington\_1 (BD2), Paolo\_1 (BD2), Puginator\_1 (BD2),

Start 12:

- Found in 2 of 105 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 97
- Called 50.0% of time when present
- Phage (with cluster) where this start called: SqueakyClean\_1 (BD2),

Start 13:

- Found in 2 of 105 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 97
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Hank144\_1 (BD2),

Start 14:

- Found in 105 of 105 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 90 of 97
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Aaronocolus\_1 (BD1), Alsaber\_1 (BD3), Alvy\_1 (BD2), Amethyst\_1 (BD2), Andris\_1 (BD2), Animus\_1 (BD2), Asten\_1 (BD1), BarryBee\_1 (BD1), BartholomewSD\_1 (BD2), BeardedLady\_1 (BD1), Bovely\_1 (BD1), Bowden\_1 (BD2), Brataylor\_1 (BD1), BryanRecycles\_1 (BD1), Caelum\_1 (BD2), Caliburn\_1 (BD1), Celery\_1 (BD3), Celeste\_1 (BD1), Celia\_1 (BD6), Chucky\_1 (BD1), Conan\_1 (BD3), Danzina\_1 (BD1), Dattran\_1 (BD1), Dexters\_1 (BD3), Diane\_1 (BD2), Dwayne\_1 (BD1), ELB20\_01 (BD2), Eddasa\_1 (BD1), Ejemplo\_1 (BD1), ElGato\_1 (BD3), Emaanora\_1 (BD1), EnochSoames\_1 (BD1), Esperer\_1 (BD1), GirlDinner\_1 (BD2), Goby\_1 (BD1), Godpower\_1 (BD1), Haizum\_1 (BD2), Hippo\_1 (BD1), Hydra\_1 (BD1), Indigo\_1 (BD1), Issmi\_1 (BD2), Itza\_1 (BD6), Izzy\_1 (BD1), Janus\_1 (BD2), Jash\_1 (BD1), Kaine\_1 (BD3), Katalie\_1 (BD1), Legacy\_1 (BD1), Leviticus\_1 (BD1), Lika\_1 (BD1), Loofah\_1 (BD2), Lorelei\_1 (BD1), Maneekul\_1 (BD1), Marav\_1 (BD2), Nabi\_1 (BD1), Nanodon\_1 (BD1), Nerdos\_1 (BD1), Nishikigoi\_1 (BD2), Oliynyk\_1 (BD1), Omar\_1 (BD2), Ozzie\_1 (BD1), OzzyJ\_1 (BD1), Pablito\_1 (BD2), Paedore\_1 (BD2), Pavo\_1 (BD3), Phettuccine\_1 (BD1), Provolone\_1 (BD3), Rana\_1 (BD1), RedBear\_1 (BD1), Rusticus\_1 (BD1), Saftant\_1 (BD3), SarahRose\_1 (BD1), Snorlax\_1 (BD1), South40\_1 (BD1), Sujidade\_1 (BD1), SunsetPointe\_1 (BD1), Superstar\_1 (BD2), TAgePhighter\_1 (BD1), Tefunt\_1 (BD2), Thestral\_1 (BD2), TinaBelcher\_1 (BD2), Toma\_1 (BD1), Triste\_1 (BD1), Triumph\_1 (BD2), TrvxScott\_1 (BD2), TuanPN\_1 (BD1), Unstoppable\_1 (BD1), Urza\_1 (BD6), Vanseggelen\_1 (BD3), Verabelle\_1 (BD3), VieEnRose\_1 (BD6), Werner\_1 (BD1), Whatever\_1 (BD1), Yasdnil\_1 (BD1), Yosif\_1 (BD3), Zainub\_1 (BD2), Zemlya\_1 (BD1), phiCAM\_01 (BD3),

Start 15:

- Found in 19 of 105 ( 18.1% ) of genes in pham
- Manual Annotations of this start: 1 of 97
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Lannister\_1 (BD1),

### Summary by clusters:

There are 4 clusters represented in this pham: BD6, BD1, BD3, BD2,

Info for manual annotations of cluster BD1:

- Start number 14 was manually annotated 54 times for cluster BD1.
- Start number 15 was manually annotated 1 time for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 8 was manually annotated 1 time for cluster BD2.
- Start number 9 was manually annotated 3 times for cluster BD2.
- Start number 12 was manually annotated 1 time for cluster BD2.
- Start number 13 was manually annotated 1 time for cluster BD2.
- Start number 14 was manually annotated 25 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 14 was manually annotated 7 times for cluster BD3.

Info for manual annotations of cluster BD6:

- Start number 14 was manually annotated 4 times for cluster BD6.

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

Gene: Aaronocolus\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Aaronocolus\_1:

(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Alsaber\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Alsaber\_1:

(Start: 14 @297 has 90 MA's), (17, 249), (19, 240),

Gene: Alvy\_1 Start: 311, Stop: 120, Start Num: 14

Candidate Starts for Alvy\_1:

(Start: 14 @311 has 90 MA's),

Gene: Amethyst\_1 Start: 220, Stop: 35, Start Num: 14

Candidate Starts for Amethyst\_1:

(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 90 MA's), (17, 184), (28, 97),

Gene: Andris\_1 Start: 244, Stop: 65, Start Num: 14

Candidate Starts for Andris\_1:

(Start: 13 @253 has 1 MA's), (Start: 14 @244 has 90 MA's), (30, 109),

Gene: Animus\_1 Start: 250, Stop: 74, Start Num: 14

Candidate Starts for Animus\_1:

(Start: 14 @250 has 90 MA's), (30, 118), (32, 91),

Gene: Asten\_1 Start: 296, Stop: 90, Start Num: 14

Candidate Starts for Asten\_1:

(1, 392), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: BarryBee\_1 Start: 296, Stop: 90, Start Num: 14

Candidate Starts for BarryBee\_1:

(1, 392), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: BartholomewSD\_1 Start: 311, Stop: 120, Start Num: 14

Candidate Starts for BartholomewSD\_1:

(Start: 14 @311 has 90 MA's),

Gene: BeardedLady\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for BeardedLady\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Bovely\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Bovely\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Bowden\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for Bowden\_1:  
(Start: 14 @219 has 90 MA's),

Gene: Brataylor\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Brataylor\_1:  
(1, 393), (10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: BryanRecycles\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for BryanRecycles\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Caelum\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for Caelum\_1:  
(Start: 14 @219 has 90 MA's), (17, 183), (28, 96),

Gene: Caliburn\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Caliburn\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Celery\_1 Start: 297, Stop: 103, Start Num: 14  
Candidate Starts for Celery\_1:  
(3, 369), (5, 351), (Start: 14 @297 has 90 MA's), (17, 249), (18, 246), (27, 165),

Gene: Celeste\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Celeste\_1:  
(1, 393), (10, 324), (Start: 14 @297 has 90 MA's), (Start: 15 @273 has 1 MA's), (22, 231), (26, 174), (34, 111),

Gene: Celia\_1 Start: 300, Stop: 103, Start Num: 14  
Candidate Starts for Celia\_1:  
(2, 390), (Start: 14 @300 has 90 MA's), (17, 249),

Gene: Chucky\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for Chucky\_1:  
(10, 323), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Conan\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Conan\_1:  
(Start: 14 @297 has 90 MA's), (17, 249), (19, 240),

Gene: Danzina\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Danzina\_1:  
(1, 393), (10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: Dattran\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Dattran\_1:  
(10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: Daudau\_1 Start: 259, Stop: 35, Start Num: 8  
Candidate Starts for Daudau\_1:  
(Start: 8 @259 has 1 MA's), (Start: 14 @223 has 90 MA's), (28, 97),

Gene: Dexers\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Dexers\_1:  
(Start: 14 @297 has 90 MA's), (17, 249), (19, 240),

Gene: Diane\_1 Start: 220, Stop: 35, Start Num: 14  
Candidate Starts for Diane\_1:  
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 90 MA's), (17, 184), (28, 97),

Gene: Dwayne\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for Dwayne\_1:  
(10, 323), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: ELB20\_01 Start: 220, Stop: 35, Start Num: 14  
Candidate Starts for ELB20\_01:  
(Start: 14 @220 has 90 MA's), (17, 184), (28, 97),

Gene: Eddasa\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Eddasa\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Ejemplo\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Ejemplo\_1:  
(1, 393), (Start: 14 @297 has 90 MA's), (22, 231), (34, 111),

Gene: ElGato\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for ElGato\_1:  
(Start: 14 @297 has 90 MA's), (17, 249), (19, 240),

Gene: Emaanora\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for Emaanora\_1:  
(1, 392), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: EnochSoames\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for EnochSoames\_1:  
(Start: 14 @296 has 90 MA's), (24, 188), (26, 173), (29, 158), (32, 128),

Gene: Esperer\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Esperer\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: GirlDinner\_1 Start: 250, Stop: 74, Start Num: 14  
Candidate Starts for GirlDinner\_1:  
(Start: 14 @250 has 90 MA's), (30, 118), (32, 91),

Gene: Goby\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Goby\_1:  
(10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: Godpower\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Godpower\_1:  
(1, 393), (10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: Haizum\_1 Start: 220, Stop: 35, Start Num: 14  
Candidate Starts for Haizum\_1:  
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 90 MA's), (17, 184),

Gene: Hank144\_1 Start: 259, Stop: 74, Start Num: 13  
Candidate Starts for Hank144\_1:  
(Start: 13 @259 has 1 MA's), (Start: 14 @250 has 90 MA's), (30, 118),

Gene: Hippo\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for Hippo\_1:  
(1, 392), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Hydra\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Hydra\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Indigo\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Indigo\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Issmi\_1 Start: 216, Stop: 25, Start Num: 14  
Candidate Starts for Issmi\_1:  
(Start: 8 @252 has 1 MA's), (Start: 14 @216 has 90 MA's), (17, 183), (25, 111), (28, 96),

Gene: Itza\_1 Start: 300, Stop: 103, Start Num: 14  
Candidate Starts for Itza\_1:  
(2, 390), (Start: 14 @300 has 90 MA's), (17, 249),

Gene: Izzy\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Izzy\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Janus\_1 Start: 250, Stop: 74, Start Num: 14  
Candidate Starts for Janus\_1:  
(Start: 12 @274 has 1 MA's), (Start: 14 @250 has 90 MA's), (30, 118), (32, 91),

Gene: Jash\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Jash\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Jevington\_1 Start: 255, Stop: 25, Start Num: 9  
Candidate Starts for Jevington\_1:  
(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 90 MA's),

Gene: Kaine\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Kaine\_1:



(Start: 14 @297 has 90 MA's), (17, 249), (19, 240),

Gene: Katalie\_1 Start: 296, Stop: 90, Start Num: 14

Candidate Starts for Katalie\_1:

(6, 344), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230),

Gene: Lannister\_1 Start: 273, Stop: 103, Start Num: 15

Candidate Starts for Lannister\_1:

(6, 357), (Start: 14 @297 has 90 MA's), (Start: 15 @273 has 1 MA's), (22, 231), (26, 174),

Gene: Legacy\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Legacy\_1:

(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Leviticus\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Leviticus\_1:

(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Lika\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Lika\_1:

(1, 393), (10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: Loofah\_1 Start: 219, Stop: 25, Start Num: 14

Candidate Starts for Loofah\_1:

(Start: 14 @219 has 90 MA's),

Gene: Lorelei\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Lorelei\_1:

(10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (34, 111),

Gene: Maneekul\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Maneekul\_1:

(1, 393), (Start: 14 @297 has 90 MA's), (20, 237), (22, 231), (34, 111),

Gene: Marav\_1 Start: 219, Stop: 25, Start Num: 14

Candidate Starts for Marav\_1:

(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 90 MA's),

Gene: Nabi\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Nabi\_1:

(10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (34, 111),

Gene: Nanodon\_1 Start: 296, Stop: 102, Start Num: 14

Candidate Starts for Nanodon\_1:

(Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (24, 188), (34, 110),

Gene: Nerdos\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Nerdos\_1:

(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Nishikigoi\_1 Start: 220, Stop: 35, Start Num: 14

Candidate Starts for Nishikigoi\_1:

(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 90 MA's), (17, 184),

Gene: Oliynyk\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Oliynyk\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Omar\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for Omar\_1:  
(Start: 14 @219 has 90 MA's),

Gene: Ozzie\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Ozzie\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: OzzyJ\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for OzzyJ\_1:  
(10, 323), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Pablito\_1 Start: 250, Stop: 74, Start Num: 14  
Candidate Starts for Pablito\_1:  
(11, 277), (Start: 14 @250 has 90 MA's), (30, 118), (32, 91),

Gene: Paedore\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for Paedore\_1:  
(Start: 14 @219 has 90 MA's),

Gene: Paolo\_1 Start: 255, Stop: 25, Start Num: 9  
Candidate Starts for Paolo\_1:  
(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 90 MA's),

Gene: Pavo\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Pavo\_1:  
(Start: 14 @297 has 90 MA's), (17, 249), (19, 240),

Gene: Phettuccine\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Phettuccine\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Provolone\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Provolone\_1:  
(Start: 14 @297 has 90 MA's), (17, 249), (19, 240),

Gene: Puginator\_1 Start: 255, Stop: 25, Start Num: 9  
Candidate Starts for Puginator\_1:  
(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 90 MA's),

Gene: Rana\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Rana\_1:  
(10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (34, 111),

Gene: RedBear\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for RedBear\_1:  
(6, 344), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230),

Gene: Rusticus\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Rusticus\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Saftant\_1 Start: 297, Stop: 103, Start Num: 14  
Candidate Starts for Saftant\_1:  
(Start: 14 @297 has 90 MA's), (18, 246), (27, 165),

Gene: SarahRose\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for SarahRose\_1:  
(1, 392), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Snorlax\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for Snorlax\_1:  
(1, 392), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: South40\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for South40\_1:  
(6, 344), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230),

Gene: SqueakyClean\_1 Start: 274, Stop: 74, Start Num: 12  
Candidate Starts for SqueakyClean\_1:  
(Start: 12 @274 has 1 MA's), (Start: 14 @250 has 90 MA's), (30, 118), (32, 91),

Gene: Sujidade\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Sujidade\_1:  
(10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (34, 111),

Gene: SunsetPointe\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for SunsetPointe\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Superstar\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for Superstar\_1:  
(Start: 14 @219 has 90 MA's), (23, 129), (28, 96),

Gene: TagePhighter\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for TagePhighter\_1:  
(10, 323), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Tefunt\_1 Start: 220, Stop: 35, Start Num: 14  
Candidate Starts for Tefunt\_1:  
(Start: 8 @256 has 1 MA's), (Start: 14 @220 has 90 MA's), (17, 184),

Gene: Thestral\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for Thestral\_1:  
(Start: 14 @219 has 90 MA's),

Gene: TinaBelcher\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for TinaBelcher\_1:  
(Start: 14 @219 has 90 MA's),

Gene: Toma\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Toma\_1:  
(10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: Triste\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for Triste\_1:  
(10, 323), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Triumph\_1 Start: 249, Stop: 73, Start Num: 14  
Candidate Starts for Triumph\_1:  
(Start: 14 @249 has 90 MA's), (30, 117), (32, 90),

Gene: TrvxScott\_1 Start: 219, Stop: 25, Start Num: 14  
Candidate Starts for TrvxScott\_1:  
(Start: 14 @219 has 90 MA's),

Gene: TuanPN\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for TuanPN\_1:  
(1, 393), (Start: 14 @297 has 90 MA's), (22, 231), (34, 111),

Gene: Unstoppable\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Unstoppable\_1:  
(Start: 14 @297 has 90 MA's), (24, 189), (26, 174), (29, 159), (32, 129),

Gene: Urza\_1 Start: 300, Stop: 103, Start Num: 14  
Candidate Starts for Urza\_1:  
(2, 390), (Start: 14 @300 has 90 MA's), (17, 249),

Gene: Vanseggelen\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Vanseggelen\_1:  
(Start: 14 @297 has 90 MA's), (17, 249),

Gene: Verabelle\_1 Start: 297, Stop: 103, Start Num: 14  
Candidate Starts for Verabelle\_1:  
(3, 369), (4, 363), (Start: 14 @297 has 90 MA's), (19, 240),

Gene: VieEnRose\_1 Start: 300, Stop: 103, Start Num: 14  
Candidate Starts for VieEnRose\_1:  
(Start: 14 @300 has 90 MA's), (17, 249),

Gene: Werner\_1 Start: 296, Stop: 90, Start Num: 14  
Candidate Starts for Werner\_1:  
(10, 323), (Start: 14 @296 has 90 MA's), (Start: 15 @272 has 1 MA's), (22, 230), (34, 110),

Gene: Whatever\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Whatever\_1:  
(1, 393), (Start: 14 @297 has 90 MA's), (Start: 15 @273 has 1 MA's), (22, 231), (34, 111),

Gene: Yasdni1\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Yasdni1\_1:  
(1, 393), (Start: 14 @297 has 90 MA's), (20, 237), (22, 231), (34, 111),

Gene: Yosif\_1 Start: 297, Stop: 91, Start Num: 14  
Candidate Starts for Yosif\_1:

(Start: 14 @297 has 90 MA's), (16, 252), (17, 249), (21, 234), (31, 138), (33, 120),

Gene: Zainub\_1 Start: 219, Stop: 25, Start Num: 14

Candidate Starts for Zainub\_1:

(7, 261), (Start: 9 @255 has 3 MA's), (Start: 14 @219 has 90 MA's),

Gene: Zemlya\_1 Start: 297, Stop: 91, Start Num: 14

Candidate Starts for Zemlya\_1:

(1, 393), (10, 324), (Start: 14 @297 has 90 MA's), (22, 231), (26, 174), (34, 111),

Gene: phiCAM\_01 Start: 297, Stop: 103, Start Num: 14

Candidate Starts for phiCAM\_01:

(3, 369), (Start: 14 @297 has 90 MA's), (17, 249), (18, 246), (27, 165),