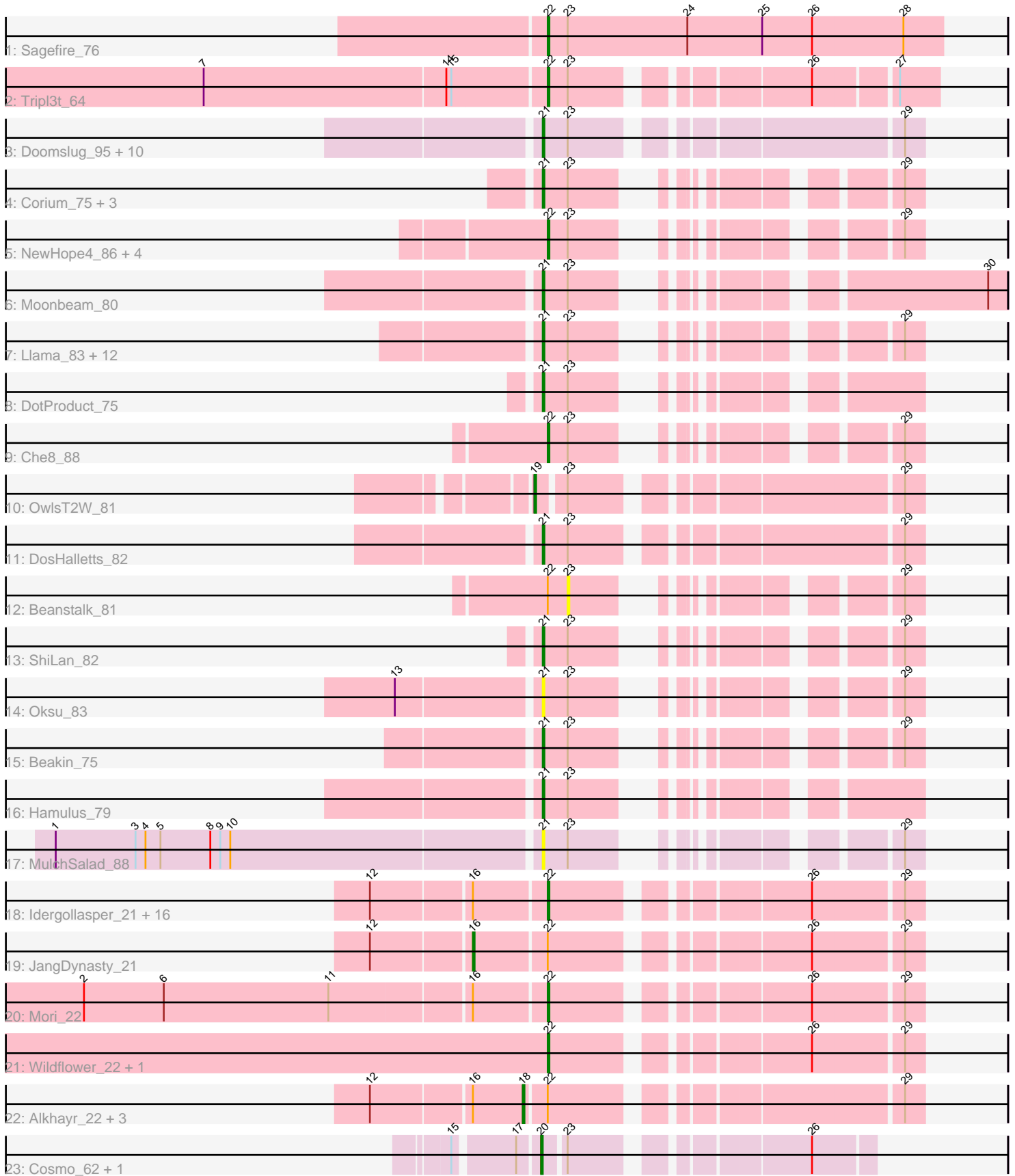


# Pham 301344



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 301344 Report

This analysis was run 06/08/26 on database version 649.

Pham number 301344 has 73 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Sagefire\_76
- Track 2 : Tripl3t\_64
- Track 3 : Doomslug\_95, Girafales\_88, Mattes\_80, DillTech15\_86, GUmbie\_73, Phasih\_75, Akhila\_73, Zerg\_77, Quico\_88, MilanaBonita\_72, Florinda\_91
- Track 4 : Corium\_75, KingJulian\_81, ThetaBob\_81, PatoPoderoso\_75
- Track 5 : NewHope4\_86, LunaBlu\_86, Polo2Bam\_92, SeaLumen\_89, Enzomatic\_93
- Track 6 : Moonbeam\_80
- Track 7 : Llama\_83, OfUltron\_84, Ochi17\_82, Doug\_79, Seabastian\_84, Yorick\_75, Alexphander\_79, AlpineSix\_83, Rialto\_86, Modragons\_81, Nichirin\_77, RockyHorror\_80, Jinglebell\_83
- Track 8 : DotProduct\_75
- Track 9 : Che8\_88
- Track 10 : OwlsT2W\_81
- Track 11 : DosHalletts\_82
- Track 12 : Beanstalk\_81
- Track 13 : ShiLan\_82
- Track 14 : Oksu\_83
- Track 15 : Beakin\_75
- Track 16 : Hamulus\_79
- Track 17 : MulchSalad\_88
- Track 18 : Idergollasper\_21, Ryadel\_24, Vorrps\_22, Murai\_22, Familton\_22, FoulBall\_21, Winget\_22, Zebo\_21, Shida\_22, Krili\_22, Schuy\_23, Catdawg\_21, Firecracker\_22, Vagabond\_22, NiebruSaylor\_22, Blessica\_22, SchoolBus\_21
- Track 19 : JangDynasty\_21
- Track 20 : Mori\_22
- Track 21 : Wildflower\_22, Ashwin\_23
- Track 22 : Alkhayr\_22, MadKillah\_23, Corndog\_24, YungJamal\_23
- Track 23 : Cosmo\_62, Azrael100\_61

### ***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 30 of the 63 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila\_73, Alexphander\_79, AlpineSix\_83, Beakin\_75, Corium\_75, DillTech15\_86, Doomslug\_95, DosHalletts\_82, DotProduct\_75, Doug\_79, Florinda\_91, GUmbie\_73, Girafales\_88, Hamulus\_79, Jinglebell\_83, KingJulian\_81, Llama\_83, Mattes\_80, MilanaBonita\_72, Modragons\_81, Moonbeam\_80, MulchSalad\_88, Nichirin\_77, Ochi17\_82, OfUltron\_84, Oksu\_83, PatoPoderoso\_75, Phasih\_75, Quico\_88, Rialto\_86, RockyHorror\_80, Sebastian\_84, ShiLan\_82, ThetaBob\_81, Yorick\_75, Zerg\_77,

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

- 

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

- Alkhayr\_22, Ashwin\_23, Azrael100\_61, Beanstalk\_81, Blessica\_22, Catdawg\_21, Che8\_88, Corndog\_24, Cosmo\_62, Enzomatic\_93, Familton\_22, Firecracker\_22, FoulBall\_21, Idergollasper\_21, JangDynasty\_21, Krili\_22, LunaBlu\_86, MadKillah\_23, Mori\_22, Murai\_22, NewHope4\_86, NiebruSaylor\_22, OwlsT2W\_81, Polo2Bam\_92, Ryadel\_24, Sagefire\_76, SchoolBus\_21, Schuy\_23, SeaLumen\_89, Shida\_22, Tripl3t\_64, Vagabond\_22, Vorrrps\_22, Wildflower\_22, Winget\_22, YungJamal\_23, Zebo\_21,

### Summary by start number:

Start 16:

- Found in 23 of 73 ( 31.5% ) of genes in pham
- Manual Annotations of this start: 1 of 63
- Called 4.3% of time when present
- Phage (with cluster) where this start called: JangDynasty\_21 (O),

Start 18:

- Found in 4 of 73 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 4 of 63
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alkhayr\_22 (O), Corndog\_24 (O), MadKillah\_23 (O), YungJamal\_23 (O),

Start 19:

- Found in 1 of 73 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 1 of 63
- Called 100.0% of time when present
- Phage (with cluster) where this start called: OwlsT2W\_81 (F1),

Start 20:

- Found in 2 of 73 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 2 of 63
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100\_61 (V), Cosmo\_62 (V),

Start 21:

- Found in 36 of 73 ( 49.3% ) of genes in pham
- Manual Annotations of this start: 30 of 63
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Akhila\_73 (F1), Alexphander\_79 (F1), AlpineSix\_83 (F1), Beakin\_75 (F1), Corium\_75 (F1), DillTech15\_86 (F1), Doomslug\_95 (F), DosHalletts\_82 (F1), DotProduct\_75 (F1), Doug\_79 (F1), Florinda\_91 (F1), GUmbie\_73 (F1), Girafales\_88 (F1), Hamulus\_79 (F1), Jinglebell\_83 (F1), KingJulian\_81 (F1), Llama\_83 (F1), Mattes\_80 (F1), MilanaBonita\_72 (F1), Modragons\_81 (F1), Moonbeam\_80 (F1), MulchSalad\_88 (F7), Nichirin\_77 (F1), Ochi17\_82 (F1), OfUltron\_84 (F1), Oksu\_83 (F1), PatoPoderoso\_75 (F1), Phasih\_75 (F1), Quico\_88 (F1), Rialto\_86 (F1), RockyHorror\_80 (F1), Seabastian\_84 (F1), ShiLan\_82 (F1), ThetaBob\_81 (F4), Yorick\_75 (F1), Zerg\_77 (F1),

#### Start 22:

- Found in 34 of 73 ( 46.6% ) of genes in pham
- Manual Annotations of this start: 25 of 63
- Called 82.4% of time when present
- Phage (with cluster) where this start called: Ashwin\_23 (O), Blessica\_22 (O), Catdawg\_21 (O), Che8\_88 (F1), Enzomatic\_93 (F1), Familton\_22 (O), Firecracker\_22 (O), FouilBall\_21 (O), Idergollasper\_21 (O), Krili\_22 (O), LunaBlu\_86 (F1), Mori\_22 (O), Murai\_22 (O), NewHope4\_86 (F1), NiebruSaylor\_22 (O), Polo2Bam\_92 (F1), Ryadel\_24 (O), Sagefire\_76 (A1), SchoolBus\_21 (O), Schuy\_23 (O), SeaLumen\_89 (F1), Shida\_22 (O), Tripl3t\_64 (A1), Vagabond\_22 (O), Vorrps\_22 (O), Wildflower\_22 (O), Winget\_22 (O), Zebo\_21 (O),

#### Start 23:

- Found in 48 of 73 ( 65.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.1% of time when present
- Phage (with cluster) where this start called: Beanstalk\_81 (F1),

### Summary by clusters:

There are 7 clusters represented in this pham: F1, F4, F, F7, O, A1, V,

Info for manual annotations of cluster A1:

- Start number 22 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster F1:

- Start number 19 was manually annotated 1 time for cluster F1.
- Start number 21 was manually annotated 29 times for cluster F1.
- Start number 22 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 21 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster O:

- Start number 16 was manually annotated 1 time for cluster O.
- Start number 18 was manually annotated 4 times for cluster O.
- Start number 22 was manually annotated 20 times for cluster O.

Info for manual annotations of cluster V:

- Start number 20 was manually annotated 2 times for cluster V.

**Gene Information:**

Gene: Akhila\_73 Start: 46636, Stop: 46833, Start Num: 21

Candidate Starts for Akhila\_73:

(Start: 21 @46636 has 30 MA's), (23, 46651), (29, 46822),

Gene: Alexphander\_79 Start: 48647, Stop: 48805, Start Num: 21

Candidate Starts for Alexphander\_79:

(Start: 21 @48647 has 30 MA's), (23, 48662), (29, 48794),

Gene: Alkhayr\_22 Start: 10445, Stop: 10651, Start Num: 18

Candidate Starts for Alkhayr\_22:

(12, 10358), (Start: 16 @10415 has 1 MA's), (Start: 18 @10445 has 4 MA's), (Start: 22 @10457 has 25 MA's), (29, 10640),

Gene: AlpineSix\_83 Start: 48661, Stop: 48819, Start Num: 21

Candidate Starts for AlpineSix\_83:

(Start: 21 @48661 has 30 MA's), (23, 48676), (29, 48808),

Gene: Ashwin\_23 Start: 10677, Stop: 10871, Start Num: 22

Candidate Starts for Ashwin\_23:

(Start: 22 @10677 has 25 MA's), (26, 10809), (29, 10860),

Gene: Azrael100\_61 Start: 42662, Stop: 42829, Start Num: 20

Candidate Starts for Azrael100\_61:

(15, 42617), (17, 42650), (Start: 20 @42662 has 2 MA's), (23, 42674), (26, 42794),

Gene: Beakin\_75 Start: 45897, Stop: 46055, Start Num: 21

Candidate Starts for Beakin\_75:

(Start: 21 @45897 has 30 MA's), (23, 45912), (29, 46044),

Gene: Beanstalk\_81 Start: 48793, Stop: 48936, Start Num: 23

Candidate Starts for Beanstalk\_81:

(Start: 22 @48781 has 25 MA's), (23, 48793), (29, 48925),

Gene: Blessica\_22 Start: 10480, Stop: 10674, Start Num: 22

Candidate Starts for Blessica\_22:

(12, 10381), (Start: 16 @10438 has 1 MA's), (Start: 22 @10480 has 25 MA's), (26, 10612), (29, 10663),

Gene: Catdawg\_21 Start: 10086, Stop: 10280, Start Num: 22

Candidate Starts for Catdawg\_21:

(12, 9987), (Start: 16 @10044 has 1 MA's), (Start: 22 @10086 has 25 MA's), (26, 10218), (29, 10269),

Gene: Che8\_88 Start: 50516, Stop: 50671, Start Num: 22

Candidate Starts for Che8\_88:

(Start: 22 @50516 has 25 MA's), (23, 50528), (29, 50660),

Gene: Corium\_75 Start: 49154, Stop: 49312, Start Num: 21

Candidate Starts for Corium\_75:

(Start: 21 @49154 has 30 MA's), (23, 49169), (29, 49301),

Gene: Corndog\_24 Start: 10777, Stop: 10983, Start Num: 18  
Candidate Starts for Corndog\_24:  
(12, 10690), (Start: 16 @10747 has 1 MA's), (Start: 18 @10777 has 4 MA's), (Start: 22 @10789 has 25 MA's), (29, 10972),

Gene: Cosmo\_62 Start: 42663, Stop: 42830, Start Num: 20  
Candidate Starts for Cosmo\_62:  
(15, 42618), (17, 42651), (Start: 20 @42663 has 2 MA's), (23, 42675), (26, 42795),

Gene: DillTech15\_86 Start: 48634, Stop: 48792, Start Num: 21  
Candidate Starts for DillTech15\_86:  
(Start: 21 @48634 has 30 MA's), (23, 48649), (29, 48781),

Gene: Doomslug\_95 Start: 50825, Stop: 51022, Start Num: 21  
Candidate Starts for Doomslug\_95:  
(Start: 21 @50825 has 30 MA's), (23, 50840), (29, 51011),

Gene: DosHalletts\_82 Start: 49942, Stop: 50139, Start Num: 21  
Candidate Starts for DosHalletts\_82:  
(Start: 21 @49942 has 30 MA's), (23, 49957), (29, 50128),

Gene: DotProduct\_75 Start: 46947, Stop: 47108, Start Num: 21  
Candidate Starts for DotProduct\_75:  
(Start: 21 @46947 has 30 MA's), (23, 46962),

Gene: Doug\_79 Start: 49478, Stop: 49636, Start Num: 21  
Candidate Starts for Doug\_79:  
(Start: 21 @49478 has 30 MA's), (23, 49493), (29, 49625),

Gene: Enzomatic\_93 Start: 48041, Stop: 48196, Start Num: 22  
Candidate Starts for Enzomatic\_93:  
(Start: 22 @48041 has 25 MA's), (23, 48053), (29, 48185),

Gene: Familton\_22 Start: 10087, Stop: 10281, Start Num: 22  
Candidate Starts for Familton\_22:  
(12, 9988), (Start: 16 @10045 has 1 MA's), (Start: 22 @10087 has 25 MA's), (26, 10219), (29, 10270),

Gene: Firecracker\_22 Start: 10410, Stop: 10604, Start Num: 22  
Candidate Starts for Firecracker\_22:  
(12, 10311), (Start: 16 @10368 has 1 MA's), (Start: 22 @10410 has 25 MA's), (26, 10542), (29, 10593),

Gene: Florinda\_91 Start: 50859, Stop: 51017, Start Num: 21  
Candidate Starts for Florinda\_91:  
(Start: 21 @50859 has 30 MA's), (23, 50874), (29, 51006),

Gene: FoulBall\_21 Start: 10087, Stop: 10281, Start Num: 22  
Candidate Starts for FoulBall\_21:  
(12, 9988), (Start: 16 @10045 has 1 MA's), (Start: 22 @10087 has 25 MA's), (26, 10219), (29, 10270),

Gene: GUmbie\_73 Start: 47367, Stop: 47564, Start Num: 21  
Candidate Starts for GUmbie\_73:  
(Start: 21 @47367 has 30 MA's), (23, 47382), (29, 47553),

Gene: Girafales\_88 Start: 50464, Stop: 50622, Start Num: 21

Candidate Starts for Girafales\_88:

(Start: 21 @50464 has 30 MA's), (23, 50479), (29, 50611),

Gene: Hamulus\_79 Start: 48429, Stop: 48590, Start Num: 21

Candidate Starts for Hamulus\_79:

(Start: 21 @48429 has 30 MA's), (23, 48444),

Gene: Idergollasper\_21 Start: 10087, Stop: 10281, Start Num: 22

Candidate Starts for Idergollasper\_21:

(12, 9988), (Start: 16 @10045 has 1 MA's), (Start: 22 @10087 has 25 MA's), (26, 10219), (29, 10270),

Gene: JangDynasty\_21 Start: 10134, Stop: 10370, Start Num: 16

Candidate Starts for JangDynasty\_21:

(12, 10077), (Start: 16 @10134 has 1 MA's), (Start: 22 @10176 has 25 MA's), (26, 10308), (29, 10359),

Gene: Jinglebell\_83 Start: 48660, Stop: 48818, Start Num: 21

Candidate Starts for Jinglebell\_83:

(Start: 21 @48660 has 30 MA's), (23, 48675), (29, 48807),

Gene: KingJulian\_81 Start: 49154, Stop: 49312, Start Num: 21

Candidate Starts for KingJulian\_81:

(Start: 21 @49154 has 30 MA's), (23, 49169), (29, 49301),

Gene: Krili\_22 Start: 10446, Stop: 10640, Start Num: 22

Candidate Starts for Krili\_22:

(12, 10347), (Start: 16 @10404 has 1 MA's), (Start: 22 @10446 has 25 MA's), (26, 10578), (29, 10629),

Gene: Llama\_83 Start: 48516, Stop: 48674, Start Num: 21

Candidate Starts for Llama\_83:

(Start: 21 @48516 has 30 MA's), (23, 48531), (29, 48663),

Gene: LunaBlu\_86 Start: 50092, Stop: 50247, Start Num: 22

Candidate Starts for LunaBlu\_86:

(Start: 22 @50092 has 25 MA's), (23, 50104), (29, 50236),

Gene: MadKillah\_23 Start: 10467, Stop: 10673, Start Num: 18

Candidate Starts for MadKillah\_23:

(12, 10380), (Start: 16 @10437 has 1 MA's), (Start: 18 @10467 has 4 MA's), (Start: 22 @10479 has 25 MA's), (29, 10662),

Gene: Mattes\_80 Start: 49530, Stop: 49688, Start Num: 21

Candidate Starts for Mattes\_80:

(Start: 21 @49530 has 30 MA's), (23, 49545), (29, 49677),

Gene: MilanaBonita\_72 Start: 46636, Stop: 46833, Start Num: 21

Candidate Starts for MilanaBonita\_72:

(Start: 21 @46636 has 30 MA's), (23, 46651), (29, 46822),

Gene: Modragons\_81 Start: 48504, Stop: 48662, Start Num: 21

Candidate Starts for Modragons\_81:

(Start: 21 @48504 has 30 MA's), (23, 48519), (29, 48651),

Gene: Moonbeam\_80 Start: 48823, Stop: 49035, Start Num: 21

Candidate Starts for Moonbeam\_80:

(Start: 21 @48823 has 30 MA's), (23, 48838), (30, 49024),

Gene: Mori\_22 Start: 10317, Stop: 10511, Start Num: 22

Candidate Starts for Mori\_22:

(2, 10047), (6, 10095), (11, 10194), (Start: 16 @10275 has 1 MA's), (Start: 22 @10317 has 25 MA's),  
(26, 10449), (29, 10500),

Gene: MulchSalad\_88 Start: 50750, Stop: 50908, Start Num: 21

Candidate Starts for MulchSalad\_88:

(1, 50465), (3, 50513), (4, 50519), (5, 50528), (8, 50558), (9, 50564), (10, 50570), (Start: 21 @50750  
has 30 MA's), (23, 50765), (29, 50897),

Gene: Murai\_22 Start: 10318, Stop: 10512, Start Num: 22

Candidate Starts for Murai\_22:

(12, 10219), (Start: 16 @10276 has 1 MA's), (Start: 22 @10318 has 25 MA's), (26, 10450), (29, 10501),

Gene: NewHope4\_86 Start: 48187, Stop: 48342, Start Num: 22

Candidate Starts for NewHope4\_86:

(Start: 22 @48187 has 25 MA's), (23, 48199), (29, 48331),

Gene: Nichirin\_77 Start: 47878, Stop: 48036, Start Num: 21

Candidate Starts for Nichirin\_77:

(Start: 21 @47878 has 30 MA's), (23, 47893), (29, 48025),

Gene: NiebruSaylor\_22 Start: 10318, Stop: 10512, Start Num: 22

Candidate Starts for NiebruSaylor\_22:

(12, 10219), (Start: 16 @10276 has 1 MA's), (Start: 22 @10318 has 25 MA's), (26, 10450), (29, 10501),

Gene: Ochi17\_82 Start: 48111, Stop: 48269, Start Num: 21

Candidate Starts for Ochi17\_82:

(Start: 21 @48111 has 30 MA's), (23, 48126), (29, 48258),

Gene: OfUltron\_84 Start: 48660, Stop: 48818, Start Num: 21

Candidate Starts for OfUltron\_84:

(Start: 21 @48660 has 30 MA's), (23, 48675), (29, 48807),

Gene: Oksu\_83 Start: 50171, Stop: 50329, Start Num: 21

Candidate Starts for Oksu\_83:

(13, 50090), (Start: 21 @50171 has 30 MA's), (23, 50186), (29, 50318),

Gene: OwlsT2W\_81 Start: 48507, Stop: 48704, Start Num: 19

Candidate Starts for OwlsT2W\_81:

(Start: 19 @48507 has 1 MA's), (23, 48522), (29, 48693),

Gene: PatoPoderoso\_75 Start: 49154, Stop: 49312, Start Num: 21

Candidate Starts for PatoPoderoso\_75:

(Start: 21 @49154 has 30 MA's), (23, 49169), (29, 49301),

Gene: Phasih\_75 Start: 47034, Stop: 47231, Start Num: 21

Candidate Starts for Phasih\_75:

(Start: 21 @47034 has 30 MA's), (23, 47049), (29, 47220),

Gene: Polo2Bam\_92 Start: 48041, Stop: 48196, Start Num: 22

Candidate Starts for Polo2Bam\_92:

(Start: 22 @48041 has 25 MA's), (23, 48053), (29, 48185),

Gene: Quico\_88 Start: 50679, Stop: 50837, Start Num: 21

Candidate Starts for Quico\_88:

(Start: 21 @50679 has 30 MA's), (23, 50694), (29, 50826),

Gene: Rialto\_86 Start: 49722, Stop: 49880, Start Num: 21

Candidate Starts for Rialto\_86:

(Start: 21 @49722 has 30 MA's), (23, 49737), (29, 49869),

Gene: RockyHorror\_80 Start: 47416, Stop: 47574, Start Num: 21

Candidate Starts for RockyHorror\_80:

(Start: 21 @47416 has 30 MA's), (23, 47431), (29, 47563),

Gene: Ryadel\_24 Start: 10900, Stop: 11094, Start Num: 22

Candidate Starts for Ryadel\_24:

(12, 10801), (Start: 16 @10858 has 1 MA's), (Start: 22 @10900 has 25 MA's), (26, 11032), (29, 11083),

Gene: Sagefire\_76 Start: 47621, Stop: 47385, Start Num: 22

Candidate Starts for Sagefire\_76:

(Start: 22 @47621 has 25 MA's), (23, 47609), (24, 47537), (25, 47492), (26, 47462), (28, 47408),

Gene: SchoolBus\_21 Start: 10087, Stop: 10281, Start Num: 22

Candidate Starts for SchoolBus\_21:

(12, 9988), (Start: 16 @10045 has 1 MA's), (Start: 22 @10087 has 25 MA's), (26, 10219), (29, 10270),

Gene: Schuy\_23 Start: 10479, Stop: 10673, Start Num: 22

Candidate Starts for Schuy\_23:

(12, 10380), (Start: 16 @10437 has 1 MA's), (Start: 22 @10479 has 25 MA's), (26, 10611), (29, 10662),

Gene: SeaLumen\_89 Start: 48041, Stop: 48196, Start Num: 22

Candidate Starts for SeaLumen\_89:

(Start: 22 @48041 has 25 MA's), (23, 48053), (29, 48185),

Gene: Seabastian\_84 Start: 48661, Stop: 48819, Start Num: 21

Candidate Starts for Seabastian\_84:

(Start: 21 @48661 has 30 MA's), (23, 48676), (29, 48808),

Gene: ShiLan\_82 Start: 51252, Stop: 51410, Start Num: 21

Candidate Starts for ShiLan\_82:

(Start: 21 @51252 has 30 MA's), (23, 51267), (29, 51399),

Gene: Shida\_22 Start: 10384, Stop: 10578, Start Num: 22

Candidate Starts for Shida\_22:

(12, 10285), (Start: 16 @10342 has 1 MA's), (Start: 22 @10384 has 25 MA's), (26, 10516), (29, 10567),

Gene: ThetaBob\_81 Start: 47961, Stop: 48119, Start Num: 21

Candidate Starts for ThetaBob\_81:

(Start: 21 @47961 has 30 MA's), (23, 47976), (29, 48108),

Gene: Tripl3t\_64 Start: 43397, Stop: 43197, Start Num: 22

Candidate Starts for Tripl3t\_64:

(7, 43598), (14, 43454), (15, 43451), (Start: 22 @43397 has 25 MA's), (23, 43385), (26, 43265), (27, 43220),

Gene: Vagabond\_22 Start: 10361, Stop: 10555, Start Num: 22

Candidate Starts for Vagabond\_22:

(12, 10262), (Start: 16 @10319 has 1 MA's), (Start: 22 @10361 has 25 MA's), (26, 10493), (29, 10544),

Gene: Vorrps\_22 Start: 10318, Stop: 10512, Start Num: 22

Candidate Starts for Vorrps\_22:

(12, 10219), (Start: 16 @10276 has 1 MA's), (Start: 22 @10318 has 25 MA's), (26, 10450), (29, 10501),

Gene: Wildflower\_22 Start: 10341, Stop: 10535, Start Num: 22

Candidate Starts for Wildflower\_22:

(Start: 22 @10341 has 25 MA's), (26, 10473), (29, 10524),

Gene: Winget\_22 Start: 10360, Stop: 10554, Start Num: 22

Candidate Starts for Winget\_22:

(12, 10261), (Start: 16 @10318 has 1 MA's), (Start: 22 @10360 has 25 MA's), (26, 10492), (29, 10543),

Gene: Yorick\_75 Start: 49351, Stop: 49509, Start Num: 21

Candidate Starts for Yorick\_75:

(Start: 21 @49351 has 30 MA's), (23, 49366), (29, 49498),

Gene: YungJamal\_23 Start: 10657, Stop: 10863, Start Num: 18

Candidate Starts for YungJamal\_23:

(12, 10570), (Start: 16 @10627 has 1 MA's), (Start: 18 @10657 has 4 MA's), (Start: 22 @10669 has 25 MA's), (29, 10852),

Gene: Zebo\_21 Start: 10087, Stop: 10281, Start Num: 22

Candidate Starts for Zebo\_21:

(12, 9988), (Start: 16 @10045 has 1 MA's), (Start: 22 @10087 has 25 MA's), (26, 10219), (29, 10270),

Gene: Zerg\_77 Start: 48070, Stop: 48228, Start Num: 21

Candidate Starts for Zerg\_77:

(Start: 21 @48070 has 30 MA's), (23, 48085), (29, 48217),