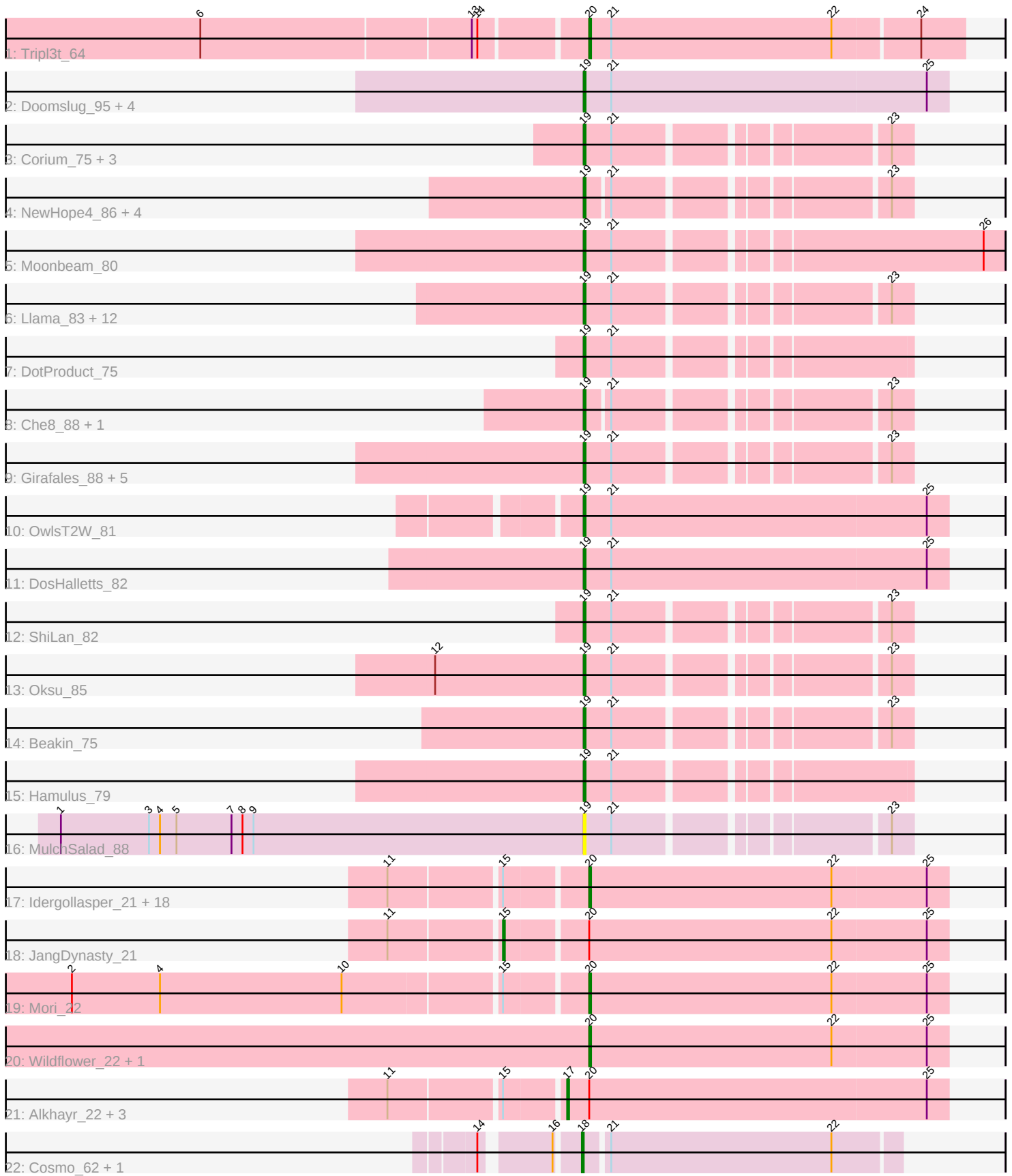


Pham 330792



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 330792 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330792 has 74 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Tripl3t_64
- Track 2 : Doomslug_95, GUmbie_73, Phasih_75, Akhila_73, MilanaBonita_72
- Track 3 : Corium_75, KingJulian_81, ThetaBob_81, PatoPoderoso_75
- Track 4 : NewHope4_86, LunaBlu_86, Polo2Bam_92, SeaLumen_89, Enzomatic_93
- Track 5 : Moonbeam_80
- Track 6 : Llama_83, Ochi17_82, Doug_79, Seabastian_84, Yorick_75, Alexphander_79, AlpineSix_83, OfUltron_84, Rialto_86, Modragons_81, Nichirin_78, RockyHorror_80, Jinglebell_83
- Track 7 : DotProduct_75
- Track 8 : Che8_88, Beanstalk_82
- Track 9 : Girafales_88, Florinda_91, Mattes_80, DillTech15_86, Zerg_77, Quico_88
- Track 10 : OwlsT2W_81
- Track 11 : DosHalletts_82
- Track 12 : ShiLan_82
- Track 13 : Oksu_85
- Track 14 : Beakin_75
- Track 15 : Hamulus_79
- Track 16 : MulchSalad_88
- Track 17 : Idergollasper_21, Ryadel_24, Vorrips_22, Murai_22, Imara_22, Familton_22, FoulBall_21, NiebruSaylor_22, Winget_22, Zebo_21, Shida_22, Vagabond_22, Catdawg_21, Schuy_23, Firecracker_22, KingPhillip3_21, Krili_22, Blessica_22, SchoolBus_21
- Track 18 : JangDynasty_21
- Track 19 : Mori_22
- Track 20 : Wildflower_22, Ashwin_23
- Track 21 : Alkhayr_22, MadKillah_23, Corndog_24, YungJamal_23
- Track 22 : 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 19, it was called in 37 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila_73, Alexphander_79, AlpineSix_83, Beakin_75, Beanstalk_82, Che8_88, Corium_75, DillTech15_86, Doomslug_95, DosHalletts_82, DotProduct_75, Doug_79, Enzomatic_93, Florinda_91, GUmbie_73, Girafales_88, Hamulus_79, Jinglebell_83, KingJulian_81, Llama_83, LunaBlu_86, Mattes_80, MilanaBonita_72, Modragons_81, Moonbeam_80, MulchSalad_88, NewHope4_86, Nichirin_78, Ochi17_82, OfUltron_84, Oksu_85, OwlsT2W_81, PatoPoderoso_75, Phasih_75, Polo2Bam_92, Quico_88, Rialto_86, RockyHorror_80, SeaLumen_89, Seabastian_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, Blessica_22, Catdawg_21, Corndog_24, Cosmo_62, Familton_22, Firecracker_22, FoulBall_21, Idergollasper_21, Imara_22, JangDynasty_21, KingPhillip3_21, Krili_22, MadKillah_23, Mori_22, Murai_22, NiebruSaylor_22, Ryadel_24, SchoolBus_21, Schuy_23, Shida_22, Tripl3t_64, Vagabond_22, Vorrrps_22, Wildflower_22, Winget_22, YungJamal_23, Zebo_21,

Summary by start number:

Start 15:

- Found in 25 of 74 (33.8%) of genes in pham
- Manual Annotations of this start: 1 of 67
- Called 4.0% of time when present
- Phage (with cluster) where this start called: JangDynasty_21 (O),

Start 17:

- Found in 4 of 74 (5.4%) of genes in pham
- Manual Annotations of this start: 4 of 67
- 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 18:

- Found in 2 of 74 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 67
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100_61 (V), Cosmo_62 (V),

Start 19:

- Found in 44 of 74 (59.5%) of genes in pham
- Manual Annotations of this start: 37 of 67
- 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), Beanstalk_82 (F1), Che8_88 (F1), Corium_75 (F1), DillTech15_86 (F1), Doomslug_95 (F), DosHalletts_82 (F1), DotProduct_75 (F1), Doug_79 (F1), Enzomatic_93 (F1), Florinda_91 (F1), GUmbie_73 (F1), Girafales_88 (F1), Hamulus_79 (F1), Jinglebell_83 (F1), KingJulian_81 (F1), Llama_83 (F1), LunaBlu_86 (F1), Mattes_80 (F1), MilanaBonita_72 (F1), Modragons_81 (F1), Moonbeam_80 (F1), MulchSalad_88 (F7), NewHope4_86 (F1), Nichirin_78 (F1), Ochi17_82 (F1), OfUltron_84 (F1), Oksu_85 (F1), OwlsT2W_81 (F1), PatoPoderoso_75 (F1), Phasih_75 (F1), Polo2Bam_92 (F1), Quico_88 (F1),

Rialto_86 (F1), RockyHorror_80 (F1), SeaLumen_89 (F1), Seabastian_84 (F1), ShiLan_82 (F1), ThetaBob_81 (F4), Yorick_75 (F1), Zerg_77 (F1),

Start 20:

- Found in 28 of 74 (37.8%) of genes in pham
- Manual Annotations of this start: 23 of 67
- Called 82.1% of time when present
- Phage (with cluster) where this start called: Ashwin_23 (O), Blessica_22 (O), Catdawg_21 (O), Familton_22 (O), Firecracker_22 (O), FoulBall_21 (O), Idergollasper_21 (O), Imara_22 (O), KingPhillip3_21 (O), Krili_22 (O), Mori_22 (O), Murai_22 (O), NiebruSaylor_22 (O), Ryadel_24 (O), SchoolBus_21 (O), Schuy_23 (O), Shida_22 (O), Tripl3t_64 (A1), Vagabond_22 (O), Vorrrps_22 (O), Wildflower_22 (O), Winget_22 (O), Zebo_21 (O),

Summary by clusters:

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

Info for manual annotations of cluster A1:

- Start number 20 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster F1:

- Start number 19 was manually annotated 36 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 19 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster O:

- Start number 15 was manually annotated 1 time for cluster O.
- Start number 17 was manually annotated 4 times for cluster O.
- Start number 20 was manually annotated 22 times for cluster O.

Info for manual annotations of cluster V:

- Start number 18 was manually annotated 2 times for cluster V.

Gene Information:

Gene: Akhila_73 Start: 46636, Stop: 46833, Start Num: 19

Candidate Starts for Akhila_73:

(Start: 19 @46636 has 37 MA's), (21, 46651), (25, 46822),

Gene: Alexphander_79 Start: 48647, Stop: 48805, Start Num: 19

Candidate Starts for Alexphander_79:

(Start: 19 @48647 has 37 MA's), (21, 48662), (23, 48794),

Gene: Alkhayr_22 Start: 10445, Stop: 10651, Start Num: 17

Candidate Starts for Alkhayr_22:

(11, 10358), (Start: 15 @10415 has 1 MA's), (Start: 17 @10445 has 4 MA's), (Start: 20 @10457 has 23 MA's), (25, 10640),

Gene: AlpineSix_83 Start: 48661, Stop: 48819, Start Num: 19

Candidate Starts for AlpineSix_83:

(Start: 19 @48661 has 37 MA's), (21, 48676), (23, 48808),

Gene: Ashwin_23 Start: 10677, Stop: 10871, Start Num: 20

Candidate Starts for Ashwin_23:

(Start: 20 @10677 has 23 MA's), (22, 10809), (25, 10860),

Gene: Azrael100_61 Start: 42662, Stop: 42829, Start Num: 18

Candidate Starts for Azrael100_61:

(14, 42617), (16, 42650), (Start: 18 @42662 has 2 MA's), (21, 42674), (22, 42794),

Gene: Beakin_75 Start: 45897, Stop: 46055, Start Num: 19

Candidate Starts for Beakin_75:

(Start: 19 @45897 has 37 MA's), (21, 45912), (23, 46044),

Gene: Beanstalk_82 Start: 48781, Stop: 48936, Start Num: 19

Candidate Starts for Beanstalk_82:

(Start: 19 @48781 has 37 MA's), (21, 48793), (23, 48925),

Gene: Blessica_22 Start: 10480, Stop: 10674, Start Num: 20

Candidate Starts for Blessica_22:

(11, 10381), (Start: 15 @10438 has 1 MA's), (Start: 20 @10480 has 23 MA's), (22, 10612), (25, 10663),

Gene: Catdawg_21 Start: 10086, Stop: 10280, Start Num: 20

Candidate Starts for Catdawg_21:

(11, 9987), (Start: 15 @10044 has 1 MA's), (Start: 20 @10086 has 23 MA's), (22, 10218), (25, 10269),

Gene: Che8_88 Start: 50516, Stop: 50671, Start Num: 19

Candidate Starts for Che8_88:

(Start: 19 @50516 has 37 MA's), (21, 50528), (23, 50660),

Gene: Corium_75 Start: 49154, Stop: 49312, Start Num: 19

Candidate Starts for Corium_75:

(Start: 19 @49154 has 37 MA's), (21, 49169), (23, 49301),

Gene: Corndog_24 Start: 10777, Stop: 10983, Start Num: 17

Candidate Starts for Corndog_24:

(11, 10690), (Start: 15 @10747 has 1 MA's), (Start: 17 @10777 has 4 MA's), (Start: 20 @10789 has 23 MA's), (25, 10972),

Gene: Cosmo_62 Start: 42663, Stop: 42830, Start Num: 18

Candidate Starts for Cosmo_62:

(14, 42618), (16, 42651), (Start: 18 @42663 has 2 MA's), (21, 42675), (22, 42795),

Gene: DillTech15_86 Start: 48634, Stop: 48792, Start Num: 19

Candidate Starts for DillTech15_86:

(Start: 19 @48634 has 37 MA's), (21, 48649), (23, 48781),

Gene: Doomslug_95 Start: 50825, Stop: 51022, Start Num: 19

Candidate Starts for Doomslug_95:

(Start: 19 @50825 has 37 MA's), (21, 50840), (25, 51011),

Gene: DosHalletts_82 Start: 49942, Stop: 50139, Start Num: 19
Candidate Starts for DosHalletts_82:
(Start: 19 @49942 has 37 MA's), (21, 49957), (25, 50128),

Gene: DotProduct_75 Start: 46947, Stop: 47108, Start Num: 19
Candidate Starts for DotProduct_75:
(Start: 19 @46947 has 37 MA's), (21, 46962),

Gene: Doug_79 Start: 49478, Stop: 49636, Start Num: 19
Candidate Starts for Doug_79:
(Start: 19 @49478 has 37 MA's), (21, 49493), (23, 49625),

Gene: Enzomatic_93 Start: 48041, Stop: 48196, Start Num: 19
Candidate Starts for Enzomatic_93:
(Start: 19 @48041 has 37 MA's), (21, 48053), (23, 48185),

Gene: Familton_22 Start: 10087, Stop: 10281, Start Num: 20
Candidate Starts for Familton_22:
(11, 9988), (Start: 15 @10045 has 1 MA's), (Start: 20 @10087 has 23 MA's), (22, 10219), (25, 10270),

Gene: Firecracker_22 Start: 10410, Stop: 10604, Start Num: 20
Candidate Starts for Firecracker_22:
(11, 10311), (Start: 15 @10368 has 1 MA's), (Start: 20 @10410 has 23 MA's), (22, 10542), (25, 10593),

Gene: Florinda_91 Start: 50859, Stop: 51017, Start Num: 19
Candidate Starts for Florinda_91:
(Start: 19 @50859 has 37 MA's), (21, 50874), (23, 51006),

Gene: FoulBall_21 Start: 10087, Stop: 10281, Start Num: 20
Candidate Starts for FoulBall_21:
(11, 9988), (Start: 15 @10045 has 1 MA's), (Start: 20 @10087 has 23 MA's), (22, 10219), (25, 10270),

Gene: GUmbie_73 Start: 47367, Stop: 47564, Start Num: 19
Candidate Starts for GUmbie_73:
(Start: 19 @47367 has 37 MA's), (21, 47382), (25, 47553),

Gene: Girafales_88 Start: 50464, Stop: 50622, Start Num: 19
Candidate Starts for Girafales_88:
(Start: 19 @50464 has 37 MA's), (21, 50479), (23, 50611),

Gene: Hamulus_79 Start: 48429, Stop: 48590, Start Num: 19
Candidate Starts for Hamulus_79:
(Start: 19 @48429 has 37 MA's), (21, 48444),

Gene: Idergollasper_21 Start: 10087, Stop: 10281, Start Num: 20
Candidate Starts for Idergollasper_21:
(11, 9988), (Start: 15 @10045 has 1 MA's), (Start: 20 @10087 has 23 MA's), (22, 10219), (25, 10270),

Gene: Imara_22 Start: 10340, Stop: 10534, Start Num: 20
Candidate Starts for Imara_22:
(11, 10241), (Start: 15 @10298 has 1 MA's), (Start: 20 @10340 has 23 MA's), (22, 10472), (25, 10523),

Gene: JangDynasty_21 Start: 10134, Stop: 10370, Start Num: 15
Candidate Starts for JangDynasty_21:
(11, 10077), (Start: 15 @10134 has 1 MA's), (Start: 20 @10176 has 23 MA's), (22, 10308), (25, 10359),

Gene: Jinglebell_83 Start: 48660, Stop: 48818, Start Num: 19
Candidate Starts for Jinglebell_83:
(Start: 19 @48660 has 37 MA's), (21, 48675), (23, 48807),

Gene: KingJulian_81 Start: 49154, Stop: 49312, Start Num: 19
Candidate Starts for KingJulian_81:
(Start: 19 @49154 has 37 MA's), (21, 49169), (23, 49301),

Gene: KingPhillip3_21 Start: 10087, Stop: 10281, Start Num: 20
Candidate Starts for KingPhillip3_21:
(11, 9988), (Start: 15 @10045 has 1 MA's), (Start: 20 @10087 has 23 MA's), (22, 10219), (25, 10270),

Gene: Krili_22 Start: 10446, Stop: 10640, Start Num: 20
Candidate Starts for Krili_22:
(11, 10347), (Start: 15 @10404 has 1 MA's), (Start: 20 @10446 has 23 MA's), (22, 10578), (25, 10629),

Gene: Llama_83 Start: 48516, Stop: 48674, Start Num: 19
Candidate Starts for Llama_83:
(Start: 19 @48516 has 37 MA's), (21, 48531), (23, 48663),

Gene: LunaBlu_86 Start: 50092, Stop: 50247, Start Num: 19
Candidate Starts for LunaBlu_86:
(Start: 19 @50092 has 37 MA's), (21, 50104), (23, 50236),

Gene: MadKillah_23 Start: 10467, Stop: 10673, Start Num: 17
Candidate Starts for MadKillah_23:
(11, 10380), (Start: 15 @10437 has 1 MA's), (Start: 17 @10467 has 4 MA's), (Start: 20 @10479 has 23 MA's), (25, 10662),

Gene: Mattes_80 Start: 49530, Stop: 49688, Start Num: 19
Candidate Starts for Mattes_80:
(Start: 19 @49530 has 37 MA's), (21, 49545), (23, 49677),

Gene: MilanaBonita_72 Start: 46636, Stop: 46833, Start Num: 19
Candidate Starts for MilanaBonita_72:
(Start: 19 @46636 has 37 MA's), (21, 46651), (25, 46822),

Gene: Modragons_81 Start: 48504, Stop: 48662, Start Num: 19
Candidate Starts for Modragons_81:
(Start: 19 @48504 has 37 MA's), (21, 48519), (23, 48651),

Gene: Moonbeam_80 Start: 48823, Stop: 49035, Start Num: 19
Candidate Starts for Moonbeam_80:
(Start: 19 @48823 has 37 MA's), (21, 48838), (26, 49024),

Gene: Mori_22 Start: 10317, Stop: 10511, Start Num: 20
Candidate Starts for Mori_22:
(2, 10047), (4, 10095), (10, 10194), (Start: 15 @10275 has 1 MA's), (Start: 20 @10317 has 23 MA's),
(22, 10449), (25, 10500),

Gene: MulchSalad_88 Start: 50750, Stop: 50908, Start Num: 19

Candidate Starts for MulchSalad_88:

(1, 50465), (3, 50513), (4, 50519), (5, 50528), (7, 50558), (8, 50564), (9, 50570), (Start: 19 @50750 has 37 MA's), (21, 50765), (23, 50897),

Gene: Murai_22 Start: 10318, Stop: 10512, Start Num: 20

Candidate Starts for Murai_22:

(11, 10219), (Start: 15 @10276 has 1 MA's), (Start: 20 @10318 has 23 MA's), (22, 10450), (25, 10501),

Gene: NewHope4_86 Start: 48187, Stop: 48342, Start Num: 19

Candidate Starts for NewHope4_86:

(Start: 19 @48187 has 37 MA's), (21, 48199), (23, 48331),

Gene: Nichirin_78 Start: 47878, Stop: 48036, Start Num: 19

Candidate Starts for Nichirin_78:

(Start: 19 @47878 has 37 MA's), (21, 47893), (23, 48025),

Gene: NiebruSaylor_22 Start: 10318, Stop: 10512, Start Num: 20

Candidate Starts for NiebruSaylor_22:

(11, 10219), (Start: 15 @10276 has 1 MA's), (Start: 20 @10318 has 23 MA's), (22, 10450), (25, 10501),

Gene: Ochi17_82 Start: 48111, Stop: 48269, Start Num: 19

Candidate Starts for Ochi17_82:

(Start: 19 @48111 has 37 MA's), (21, 48126), (23, 48258),

Gene: OfUltron_84 Start: 48660, Stop: 48818, Start Num: 19

Candidate Starts for OfUltron_84:

(Start: 19 @48660 has 37 MA's), (21, 48675), (23, 48807),

Gene: Oksu_85 Start: 50171, Stop: 50329, Start Num: 19

Candidate Starts for Oksu_85:

(12, 50090), (Start: 19 @50171 has 37 MA's), (21, 50186), (23, 50318),

Gene: OwlsT2W_81 Start: 48507, Stop: 48704, Start Num: 19

Candidate Starts for OwlsT2W_81:

(Start: 19 @48507 has 37 MA's), (21, 48522), (25, 48693),

Gene: PatoPoderoso_75 Start: 49154, Stop: 49312, Start Num: 19

Candidate Starts for PatoPoderoso_75:

(Start: 19 @49154 has 37 MA's), (21, 49169), (23, 49301),

Gene: Phasih_75 Start: 47034, Stop: 47231, Start Num: 19

Candidate Starts for Phasih_75:

(Start: 19 @47034 has 37 MA's), (21, 47049), (25, 47220),

Gene: Polo2Bam_92 Start: 48041, Stop: 48196, Start Num: 19

Candidate Starts for Polo2Bam_92:

(Start: 19 @48041 has 37 MA's), (21, 48053), (23, 48185),

Gene: Quico_88 Start: 50679, Stop: 50837, Start Num: 19

Candidate Starts for Quico_88:

(Start: 19 @50679 has 37 MA's), (21, 50694), (23, 50826),

Gene: Rialto_86 Start: 49722, Stop: 49880, Start Num: 19

Candidate Starts for Rialto_86:

(Start: 19 @49722 has 37 MA's), (21, 49737), (23, 49869),

Gene: RockyHorror_80 Start: 47416, Stop: 47574, Start Num: 19

Candidate Starts for RockyHorror_80:

(Start: 19 @47416 has 37 MA's), (21, 47431), (23, 47563),

Gene: Ryadel_24 Start: 10900, Stop: 11094, Start Num: 20

Candidate Starts for Ryadel_24:

(11, 10801), (Start: 15 @10858 has 1 MA's), (Start: 20 @10900 has 23 MA's), (22, 11032), (25, 11083),

Gene: SchoolBus_21 Start: 10087, Stop: 10281, Start Num: 20

Candidate Starts for SchoolBus_21:

(11, 9988), (Start: 15 @10045 has 1 MA's), (Start: 20 @10087 has 23 MA's), (22, 10219), (25, 10270),

Gene: Schuy_23 Start: 10479, Stop: 10673, Start Num: 20

Candidate Starts for Schuy_23:

(11, 10380), (Start: 15 @10437 has 1 MA's), (Start: 20 @10479 has 23 MA's), (22, 10611), (25, 10662),

Gene: SeaLumen_89 Start: 48041, Stop: 48196, Start Num: 19

Candidate Starts for SeaLumen_89:

(Start: 19 @48041 has 37 MA's), (21, 48053), (23, 48185),

Gene: Seabastian_84 Start: 48661, Stop: 48819, Start Num: 19

Candidate Starts for Seabastian_84:

(Start: 19 @48661 has 37 MA's), (21, 48676), (23, 48808),

Gene: ShiLan_82 Start: 51252, Stop: 51410, Start Num: 19

Candidate Starts for ShiLan_82:

(Start: 19 @51252 has 37 MA's), (21, 51267), (23, 51399),

Gene: Shida_22 Start: 10384, Stop: 10578, Start Num: 20

Candidate Starts for Shida_22:

(11, 10285), (Start: 15 @10342 has 1 MA's), (Start: 20 @10384 has 23 MA's), (22, 10516), (25, 10567),

Gene: ThetaBob_81 Start: 47961, Stop: 48119, Start Num: 19

Candidate Starts for ThetaBob_81:

(Start: 19 @47961 has 37 MA's), (21, 47976), (23, 48108),

Gene: Tripl3t_64 Start: 43397, Stop: 43197, Start Num: 20

Candidate Starts for Tripl3t_64:

(6, 43598), (13, 43454), (14, 43451), (Start: 20 @43397 has 23 MA's), (21, 43385), (22, 43265), (24, 43220),

Gene: Vagabond_22 Start: 10361, Stop: 10555, Start Num: 20

Candidate Starts for Vagabond_22:

(11, 10262), (Start: 15 @10319 has 1 MA's), (Start: 20 @10361 has 23 MA's), (22, 10493), (25, 10544),

Gene: Vorrps_22 Start: 10318, Stop: 10512, Start Num: 20

Candidate Starts for Vorrps_22:

(11, 10219), (Start: 15 @10276 has 1 MA's), (Start: 20 @10318 has 23 MA's), (22, 10450), (25, 10501),

Gene: Wildflower_22 Start: 10341, Stop: 10535, Start Num: 20

Candidate Starts for Wildflower_22:

(Start: 20 @10341 has 23 MA's), (22, 10473), (25, 10524),

Gene: Winget_22 Start: 10360, Stop: 10554, Start Num: 20

Candidate Starts for Winget_22:

(11, 10261), (Start: 15 @10318 has 1 MA's), (Start: 20 @10360 has 23 MA's), (22, 10492), (25, 10543),

Gene: Yorick_75 Start: 49351, Stop: 49509, Start Num: 19

Candidate Starts for Yorick_75:

(Start: 19 @49351 has 37 MA's), (21, 49366), (23, 49498),

Gene: YungJamal_23 Start: 10657, Stop: 10863, Start Num: 17

Candidate Starts for YungJamal_23:

(11, 10570), (Start: 15 @10627 has 1 MA's), (Start: 17 @10657 has 4 MA's), (Start: 20 @10669 has 23 MA's), (25, 10852),

Gene: Zebo_21 Start: 10087, Stop: 10281, Start Num: 20

Candidate Starts for Zebo_21:

(11, 9988), (Start: 15 @10045 has 1 MA's), (Start: 20 @10087 has 23 MA's), (22, 10219), (25, 10270),

Gene: Zerg_77 Start: 48070, Stop: 48228, Start Num: 19

Candidate Starts for Zerg_77:

(Start: 19 @48070 has 37 MA's), (21, 48085), (23, 48217),