

Pham 193878



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 193878 Report

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

Pham number 193878 has 104 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Drake94_15, PeaceMeal1_15, KittenMittens_15, Poompha_15, Severus_15
- Track 2 : OKCentral2016_16, Goose_16, Eaglepride_17, Trike_14, Chupacabra_16, DontArgue_15
- Track 3 : Jabith_17, Sham4_17, Salz_17, Mulciber_17, Flaverint_17, Petersenfast_16, Hutc2_17, Insomnia_17, Snape_17
- Track 4 : TNguyen7_16, Marchesa_16, HelDan_16, Bugatti_16, Pistachio_17, Heathen_16, Puppy_17, BlueBird_17, Scout_16, Kachowdy_16, Giroux_16, SaturnRing_16, Idleandcovert_16, DropBear_16
- Track 5 : Veracruz_16, Panamaxus_17
- Track 6 : B1_14, MK4_16, JF4_16, JF2_16, Fred313_16
- Track 7 : BabyRay_16
- Track 8 : Rockstar_16, Isca_16
- Track 9 : Phantastic_16
- Track 10 : PetiteSangsue_16, Wile_16, Katalie136_16, Badger_16, AbbysRanger_16, Backyardigan_16, Achebe_16, Morpher26_16, Perplexer_16, Shygu2_16, Datway_16, Bumblebee11_16, Xena_16, Cici_16
- Track 11 : Stink_16, AvatarAhPeg_16
- Track 12 : Sheen_18, FlyCatcher_20, Toro_19
- Track 13 : PP_26
- Track 14 : RER2_6, Gollum_13, Alatin_13, Espica_13, CosmicSans_13, RexFury_13, UhSalsa_13, TWAMP_13, Swann_13, Lillie_13, Nancinator_13, StCroix_13, Rhodalysa_13, Naiad_13, Bradshaw_13, Belenaria_13, Phrankenstein_13
- Track 15 : Yoncess_13, Bonanza_13, Yogi_13, AppleCloud_11, Krishelle_13, Rasputin_13, Bryce_13, BobbyDazzler_13, Hiro_13
- Track 16 : Erik_13
- Track 17 : Alpacados_12
- Track 18 : Harlequin_13, AngryOrchard_12, Dinger_13, Partridge_13, Jester_13, Takoda_13
- Track 19 : Natosaleda_13, Shuman_13
- Track 20 : PhorbesPhlower_7, Morkie_7
- Track 21 : Lucky10_7

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

The start number called the most often in the published annotations is 7, it was called in 88 of the 93 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbysRanger_16, Achebe_16, Alatin_13, Alpacados_12, AngryOrchard_12, AppleCloud_11, AvatarAhPeg_16, B1_14, BabyRay_16, Backyardigan_16, Badger_16, Belenaria_13, BlueBird_17, BobbyDazzler_13, Bonanza_13, Bradshaw_13, Bryce_13, Bugatti_16, Bumblebee11_16, Chupacabra_16, Cici_16, CosmicSans_13, Datway_16, Dinger_13, DontArgue_15, Drake94_15, DropBear_16, Eaglepride_17, Erik_13, Espica_13, Flaverint_17, FlyCatcher_20, Fred313_16, Giroux_16, Gollum_13, Goose_16, Harlequin_13, Heathen_16, HelDan_16, Hiro_13, Hutc2_17, Idleandcovert_16, Insomnia_17, Isca_16, JF2_16, JF4_16, Jabith_17, Jester_13, Kachowdy_16, Katalie136_16, KittenMittens_15, Krishelle_13, Lillie_13, MK4_16, Marchesa_16, Morpher26_16, Mulciber_17, Naiad_13, Nancinator_13, Natosaleda_13, OKCentral2016_16, PP_26, Partridge_13, PeaceMeal1_15, Perplexer_16, Petersenfast_16, PetiteSangsue_16, Phantastic_16, Phrankenstein_13, Pistachio_17, Poompha_15, Puppy_17, RER2_6, Rasputin_13, RexFury_13, Rhodalysa_13, Rockstar_16, Salz_17, SaturnRing_16, Scout_16, Severus_15, Sham4_17, Sheen_18, Shuman_13, Shygu2_16, Snape_17, StCroix_13, Stink_16, Swann_13, TNguyen7_16, TWAMP_13, Takoda_13, Toro_19, Trike_14, UhSalsa_13, Wile_16, Xena_16, Yogi_13, Yoncess_13,

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

- Lucky10_7, Panamaxus_17, Veracruz_16,

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

- Morkie_7, PhorbesPhlower_7,

Summary by start number:

Start 6:

- Found in 2 of 104 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Panamaxus_17 (A3), Veracruz_16 (A3),

Start 7:

- Found in 102 of 104 (98.1%) of genes in pham
- Manual Annotations of this start: 88 of 93
- Called 97.1% of time when present
- Phage (with cluster) where this start called: AbbysRanger_16 (A4), Achebe_16 (A4), Alatin_13 (CA), Alpacados_12 (CA), AngryOrchard_12 (CA), AppleCloud_11 (CA), AvatarAhPeg_16 (A4), B1_14 (A3), BabyRay_16 (A3), Backyardigan_16 (A4), Badger_16 (A4), Belenaria_13 (CA), BlueBird_17 (A3), BobbyDazzler_13 (CA), Bonanza_13 (CA), Bradshaw_13 (CA), Bryce_13 (CA), Bugatti_16 (A3), Bumblebee11_16 (A4), Chupacabra_16 (A10), Cici_16 (A4), CosmicSans_13 (CA), Datway_16 (A4), Dinger_13 (CA), DontArgue_15 (A10), Drake94_15 (A10), DropBear_16 (A3), Eaglepride_17 (A10), Erik_13 (CA), Espica_13 (CA), Flaverint_17 (A11), FlyCatcher_20 (A7), Fred313_16 (A3), Giroux_16 (A3), Gollum_13 (CA), Goose_16 (A10), Harlequin_13 (CA), Heathen_16 (A3), HelDan_16 (A3), Hiro_13 (CA), Hutc2_17 (A11), Idleandcovert_16 (A3), Insomnia_17 (A11), Isca_16 (A3), JF2_16 (A3), JF4_16 (A3), Jabith_17 (A11), Jester_13 (CA), Kachowdy_16 (A3),

Katalie136_16 (A4), KittenMittens_15 (A10), Krishelle_13 (CA), Lillie_13 (CA), MK4_16 (A3), Marchesa_16 (A3), Morpher26_16 (A4), Mulciber_17 (A11), Naiad_13 (CA), Nancinator_13 (CA), Natosaleda_13 (CA), OKCentral2016_16 (A10), PP_26 (A7), Partridge_13 (CA), PeaceMeal1_15 (A10), Perplexer_16 (A4), Petersenfast_16 (A11), PetiteSangsue_16 (A4), Phantastic_16 (A3), Phrankenstein_13 (CA), Pistachio_17 (A3), Poompha_15 (A10), Puppy_17 (A3), RER2_6 (CA), Rasputin_13 (CA), RexFury_13 (CA), Rhodalysa_13 (CA), Rockstar_16 (A3), Salz_17 (A11), SaturnRing_16 (A3), Scout_16 (A3), Severus_15 (A10), Sham4_17 (A11), Sheen_18 (A7), Shuman_13 (CA), Shygu2_16 (A4), Snape_17 (A11), StCroix_13 (CA), Stink_16 (A4), Swann_13 (CA), TNguyen7_16 (A3), TWAMP_13 (CA), Takoda_13 (CA), Toro_19 (A7), Trike_14 (A10), UhSalsa_13 (CA), Wile_16 (A4), Xena_16 (A4), Yogi_13 (CA), Yoncess_13 (CA),

Start 8:

- Found in 3 of 104 (2.9%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lucky10_7 (DH), Morkie_7 (DH), PhorbesPhlower_7 (DH),

Summary by clusters:

There are 7 clusters represented in this pham: A11, A10, DH, CA, A3, A4, A7,

Info for manual annotations of cluster A10:

- Start number 7 was manually annotated 10 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 7 was manually annotated 8 times for cluster A11.

Info for manual annotations of cluster A3:

- Start number 6 was manually annotated 2 times for cluster A3.
- Start number 7 was manually annotated 17 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 7 was manually annotated 16 times for cluster A4.

Info for manual annotations of cluster A7:

- Start number 7 was manually annotated 2 times for cluster A7.

Info for manual annotations of cluster CA:

- Start number 7 was manually annotated 35 times for cluster CA.

Info for manual annotations of cluster DH:

- Start number 8 was manually annotated 3 times for cluster DH.

Gene Information:

Gene: AbbysRanger_16 Start: 12505, Stop: 12702, Start Num: 7

Candidate Starts for AbbysRanger_16:

(Start: 7 @12505 has 88 MA's),

Gene: Achebe_16 Start: 12484, Stop: 12681, Start Num: 7
Candidate Starts for Achebe_16:
(Start: 7 @12484 has 88 MA's),

Gene: Alatin_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Alatin_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Alpacados_12 Start: 8637, Stop: 8843, Start Num: 7
Candidate Starts for Alpacados_12:
(3, 8589), (Start: 7 @8637 has 88 MA's),

Gene: AngryOrchard_12 Start: 8620, Stop: 8826, Start Num: 7
Candidate Starts for AngryOrchard_12:
(3, 8572), (Start: 7 @8620 has 88 MA's), (17, 8713),

Gene: AppleCloud_11 Start: 8384, Stop: 8566, Start Num: 7
Candidate Starts for AppleCloud_11:
(3, 8336), (Start: 7 @8384 has 88 MA's),

Gene: AvatarAhPeg_16 Start: 12446, Stop: 12640, Start Num: 7
Candidate Starts for AvatarAhPeg_16:
(Start: 7 @12446 has 88 MA's),

Gene: B1_14 Start: 11811, Stop: 11987, Start Num: 7
Candidate Starts for B1_14:
(Start: 7 @11811 has 88 MA's), (13, 11850), (14, 11862),

Gene: BabyRay_16 Start: 12381, Stop: 12560, Start Num: 7
Candidate Starts for BabyRay_16:
(Start: 7 @12381 has 88 MA's), (12, 12417), (13, 12420),

Gene: Backyardigan_16 Start: 12496, Stop: 12693, Start Num: 7
Candidate Starts for Backyardigan_16:
(Start: 7 @12496 has 88 MA's),

Gene: Badger_16 Start: 12485, Stop: 12682, Start Num: 7
Candidate Starts for Badger_16:
(Start: 7 @12485 has 88 MA's),

Gene: Belenaria_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Belenaria_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: BlueBird_17 Start: 12155, Stop: 12334, Start Num: 7
Candidate Starts for BlueBird_17:
(Start: 7 @12155 has 88 MA's), (12, 12191), (13, 12194), (19, 12299),

Gene: BobbyDazzler_13 Start: 8746, Stop: 8952, Start Num: 7
Candidate Starts for BobbyDazzler_13:
(3, 8698), (Start: 7 @8746 has 88 MA's),

Gene: Bonanza_13 Start: 8675, Stop: 8881, Start Num: 7
Candidate Starts for Bonanza_13:
(3, 8627), (Start: 7 @8675 has 88 MA's),

Gene: Bradshaw_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Bradshaw_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Bryce_13 Start: 8675, Stop: 8881, Start Num: 7
Candidate Starts for Bryce_13:
(3, 8627), (Start: 7 @8675 has 88 MA's),

Gene: Bugatti_16 Start: 12155, Stop: 12334, Start Num: 7
Candidate Starts for Bugatti_16:
(Start: 7 @12155 has 88 MA's), (12, 12191), (13, 12194), (19, 12299),

Gene: Bumblebee11_16 Start: 12487, Stop: 12684, Start Num: 7
Candidate Starts for Bumblebee11_16:
(Start: 7 @12487 has 88 MA's),

Gene: Chupacabra_16 Start: 12256, Stop: 12441, Start Num: 7
Candidate Starts for Chupacabra_16:
(Start: 7 @12256 has 88 MA's),

Gene: Cici_16 Start: 12478, Stop: 12675, Start Num: 7
Candidate Starts for Cici_16:
(Start: 7 @12478 has 88 MA's),

Gene: CosmicSans_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for CosmicSans_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Datway_16 Start: 12496, Stop: 12693, Start Num: 7
Candidate Starts for Datway_16:
(Start: 7 @12496 has 88 MA's),

Gene: Dinger_13 Start: 8671, Stop: 8877, Start Num: 7
Candidate Starts for Dinger_13:
(3, 8623), (Start: 7 @8671 has 88 MA's), (17, 8764),

Gene: DontArgue_15 Start: 10509, Stop: 10697, Start Num: 7
Candidate Starts for DontArgue_15:
(Start: 7 @10509 has 88 MA's),

Gene: Drake94_15 Start: 10353, Stop: 10532, Start Num: 7
Candidate Starts for Drake94_15:
(Start: 7 @10353 has 88 MA's),

Gene: DropBear_16 Start: 12215, Stop: 12394, Start Num: 7
Candidate Starts for DropBear_16:
(Start: 7 @12215 has 88 MA's), (12, 12251), (13, 12254), (19, 12359),

Gene: Eaglepride_17 Start: 12258, Stop: 12449, Start Num: 7

Candidate Starts for Eaglepride_17:
(Start: 7 @12258 has 88 MA's),

Gene: Erik_13 Start: 8706, Stop: 8912, Start Num: 7
Candidate Starts for Erik_13:
(4, 8685), (Start: 7 @8706 has 88 MA's), (17, 8799), (20, 8889),

Gene: Espica_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Espica_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Flaverint_17 Start: 13757, Stop: 13924, Start Num: 7
Candidate Starts for Flaverint_17:
(5, 13739), (Start: 7 @13757 has 88 MA's), (12, 13793), (16, 13841),

Gene: FlyCatcher_20 Start: 14171, Stop: 14332, Start Num: 7
Candidate Starts for FlyCatcher_20:
(Start: 7 @14171 has 88 MA's), (11, 14204), (13, 14210), (15, 14243),

Gene: Fred313_16 Start: 11876, Stop: 12052, Start Num: 7
Candidate Starts for Fred313_16:
(Start: 7 @11876 has 88 MA's), (13, 11915), (14, 11927),

Gene: Giroux_16 Start: 12155, Stop: 12334, Start Num: 7
Candidate Starts for Giroux_16:
(Start: 7 @12155 has 88 MA's), (12, 12191), (13, 12194), (19, 12299),

Gene: Gollum_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Gollum_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Goose_16 Start: 12257, Stop: 12442, Start Num: 7
Candidate Starts for Goose_16:
(Start: 7 @12257 has 88 MA's),

Gene: Harlequin_13 Start: 8675, Stop: 8857, Start Num: 7
Candidate Starts for Harlequin_13:
(3, 8627), (Start: 7 @8675 has 88 MA's), (17, 8768),

Gene: Heathen_16 Start: 11956, Stop: 12135, Start Num: 7
Candidate Starts for Heathen_16:
(Start: 7 @11956 has 88 MA's), (12, 11992), (13, 11995), (19, 12100),

Gene: HelDan_16 Start: 12208, Stop: 12387, Start Num: 7
Candidate Starts for HelDan_16:
(Start: 7 @12208 has 88 MA's), (12, 12244), (13, 12247), (19, 12352),

Gene: Hiro_13 Start: 8675, Stop: 8857, Start Num: 7
Candidate Starts for Hiro_13:
(3, 8627), (Start: 7 @8675 has 88 MA's),

Gene: Hutc2_17 Start: 13760, Stop: 13927, Start Num: 7
Candidate Starts for Hutc2_17:

(5, 13742), (Start: 7 @13760 has 88 MA's), (12, 13796), (16, 13844),

Gene: Idleandcovert_16 Start: 12155, Stop: 12334, Start Num: 7

Candidate Starts for Idleandcovert_16:

(Start: 7 @12155 has 88 MA's), (12, 12191), (13, 12194), (19, 12299),

Gene: Insomnia_17 Start: 13809, Stop: 13976, Start Num: 7

Candidate Starts for Insomnia_17:

(5, 13791), (Start: 7 @13809 has 88 MA's), (12, 13845), (16, 13893),

Gene: Isca_16 Start: 12055, Stop: 12222, Start Num: 7

Candidate Starts for Isca_16:

(Start: 7 @12055 has 88 MA's), (13, 12094),

Gene: JF2_16 Start: 11811, Stop: 11987, Start Num: 7

Candidate Starts for JF2_16:

(Start: 7 @11811 has 88 MA's), (13, 11850), (14, 11862),

Gene: JF4_16 Start: 11811, Stop: 11987, Start Num: 7

Candidate Starts for JF4_16:

(Start: 7 @11811 has 88 MA's), (13, 11850), (14, 11862),

Gene: Jabith_17 Start: 13809, Stop: 13976, Start Num: 7

Candidate Starts for Jabith_17:

(5, 13791), (Start: 7 @13809 has 88 MA's), (12, 13845), (16, 13893),

Gene: Jester_13 Start: 8675, Stop: 8857, Start Num: 7

Candidate Starts for Jester_13:

(3, 8627), (Start: 7 @8675 has 88 MA's), (17, 8768),

Gene: Kachowdy_16 Start: 12208, Stop: 12387, Start Num: 7

Candidate Starts for Kachowdy_16:

(Start: 7 @12208 has 88 MA's), (12, 12244), (13, 12247), (19, 12352),

Gene: Katalie136_16 Start: 12487, Stop: 12684, Start Num: 7

Candidate Starts for Katalie136_16:

(Start: 7 @12487 has 88 MA's),

Gene: KittenMittens_15 Start: 10361, Stop: 10540, Start Num: 7

Candidate Starts for KittenMittens_15:

(Start: 7 @10361 has 88 MA's),

Gene: Krishelle_13 Start: 8690, Stop: 8872, Start Num: 7

Candidate Starts for Krishelle_13:

(3, 8642), (Start: 7 @8690 has 88 MA's),

Gene: Lillie_13 Start: 8707, Stop: 8913, Start Num: 7

Candidate Starts for Lillie_13:

(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Lucky10_7 Start: 5390, Stop: 5542, Start Num: 8

Candidate Starts for Lucky10_7:

(Start: 7 @5387 has 88 MA's), (Start: 8 @5390 has 3 MA's), (10, 5417),

Gene: MK4_16 Start: 12045, Stop: 12221, Start Num: 7

Candidate Starts for MK4_16:

(Start: 7 @12045 has 88 MA's), (13, 12084), (14, 12096),

Gene: Marchesa_16 Start: 12206, Stop: 12385, Start Num: 7

Candidate Starts for Marchesa_16:

(Start: 7 @12206 has 88 MA's), (12, 12242), (13, 12245), (19, 12350),

Gene: Morkie_7 Start: 5358, Stop: 5504, Start Num: 8

Candidate Starts for Morkie_7:

(Start: 8 @5358 has 3 MA's), (9, 5379),

Gene: Morpher26_16 Start: 12487, Stop: 12684, Start Num: 7

Candidate Starts for Morpher26_16:

(Start: 7 @12487 has 88 MA's),

Gene: Mulciber_17 Start: 13757, Stop: 13924, Start Num: 7

Candidate Starts for Mulciber_17:

(5, 13739), (Start: 7 @13757 has 88 MA's), (12, 13793), (16, 13841),

Gene: Naiad_13 Start: 8707, Stop: 8913, Start Num: 7

Candidate Starts for Naiad_13:

(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Nancinator_13 Start: 8707, Stop: 8913, Start Num: 7

Candidate Starts for Nancinator_13:

(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Natosaleda_13 Start: 8707, Stop: 8913, Start Num: 7

Candidate Starts for Natosaleda_13:

(Start: 7 @8707 has 88 MA's), (17, 8800),

Gene: OKCentral2016_16 Start: 11957, Stop: 12142, Start Num: 7

Candidate Starts for OKCentral2016_16:

(Start: 7 @11957 has 88 MA's),

Gene: PP_26 Start: 18359, Stop: 18544, Start Num: 7

Candidate Starts for PP_26:

(1, 18167), (2, 18194), (Start: 7 @18359 has 88 MA's), (13, 18398),

Gene: Panamaxus_17 Start: 12681, Stop: 12875, Start Num: 6

Candidate Starts for Panamaxus_17:

(Start: 6 @12681 has 2 MA's), (Start: 7 @12696 has 88 MA's),

Gene: Partridge_13 Start: 8734, Stop: 8940, Start Num: 7

Candidate Starts for Partridge_13:

(3, 8686), (Start: 7 @8734 has 88 MA's), (17, 8827),

Gene: PeaceMeal1_15 Start: 10362, Stop: 10541, Start Num: 7

Candidate Starts for PeaceMeal1_15:

(Start: 7 @10362 has 88 MA's),

Gene: Perplexer_16 Start: 12481, Stop: 12678, Start Num: 7
Candidate Starts for Perplexer_16:
(Start: 7 @12481 has 88 MA's),

Gene: Petersenfast_16 Start: 13760, Stop: 13927, Start Num: 7
Candidate Starts for Petersenfast_16:
(5, 13742), (Start: 7 @13760 has 88 MA's), (12, 13796), (16, 13844),

Gene: PetiteSangsue_16 Start: 12487, Stop: 12684, Start Num: 7
Candidate Starts for PetiteSangsue_16:
(Start: 7 @12487 has 88 MA's),

Gene: Phantastic_16 Start: 12115, Stop: 12300, Start Num: 7
Candidate Starts for Phantastic_16:
(Start: 7 @12115 has 88 MA's), (11, 12148), (18, 12229),

Gene: PhorbesPhlower_7 Start: 5358, Stop: 5504, Start Num: 8
Candidate Starts for PhorbesPhlower_7:
(Start: 8 @5358 has 3 MA's), (9, 5379),

Gene: Phrankenstein_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Phrankenstein_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Pistachio_17 Start: 11702, Stop: 11881, Start Num: 7
Candidate Starts for Pistachio_17:
(Start: 7 @11702 has 88 MA's), (12, 11738), (13, 11741), (19, 11846),

Gene: Poompha_15 Start: 10360, Stop: 10539, Start Num: 7
Candidate Starts for Poompha_15:
(Start: 7 @10360 has 88 MA's),

Gene: Puppy_17 Start: 11774, Stop: 11953, Start Num: 7
Candidate Starts for Puppy_17:
(Start: 7 @11774 has 88 MA's), (12, 11810), (13, 11813), (19, 11918),

Gene: RER2_6 Start: 5579, Stop: 5785, Start Num: 7
Candidate Starts for RER2_6:
(Start: 7 @5579 has 88 MA's), (17, 5672), (20, 5762),

Gene: Rasputin_13 Start: 8675, Stop: 8881, Start Num: 7
Candidate Starts for Rasputin_13:
(3, 8627), (Start: 7 @8675 has 88 MA's),

Gene: RexFury_13 Start: 8738, Stop: 8944, Start Num: 7
Candidate Starts for RexFury_13:
(Start: 7 @8738 has 88 MA's), (17, 8831), (20, 8921),

Gene: Rhodalysa_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Rhodalysa_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Rockstar_16 Start: 12051, Stop: 12227, Start Num: 7

Candidate Starts for Rockstar_16:
(Start: 7 @12051 has 88 MA's), (13, 12090),

Gene: Salz_17 Start: 13754, Stop: 13921, Start Num: 7
Candidate Starts for Salz_17:
(5, 13736), (Start: 7 @13754 has 88 MA's), (12, 13790), (16, 13838),

Gene: SaturnRing_16 Start: 12155, Stop: 12334, Start Num: 7
Candidate Starts for SaturnRing_16:
(Start: 7 @12155 has 88 MA's), (12, 12191), (13, 12194), (19, 12299),

Gene: Scout_16 Start: 11455, Stop: 11634, Start Num: 7
Candidate Starts for Scout_16:
(Start: 7 @11455 has 88 MA's), (12, 11491), (13, 11494), (19, 11599),

Gene: Severus_15 Start: 10360, Stop: 10539, Start Num: 7
Candidate Starts for Severus_15:
(Start: 7 @10360 has 88 MA's),

Gene: Sham4_17 Start: 13760, Stop: 13927, Start Num: 7
Candidate Starts for Sham4_17:
(5, 13742), (Start: 7 @13760 has 88 MA's), (12, 13796), (16, 13844),

Gene: Sheen_18 Start: 14229, Stop: 14390, Start Num: 7
Candidate Starts for Sheen_18:
(Start: 7 @14229 has 88 MA's), (11, 14262), (13, 14268), (15, 14301),

Gene: Shuman_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Shuman_13:
(Start: 7 @8707 has 88 MA's), (17, 8800),

Gene: Shygu2_16 Start: 12482, Stop: 12679, Start Num: 7
Candidate Starts for Shygu2_16:
(Start: 7 @12482 has 88 MA's),

Gene: Snape_17 Start: 13760, Stop: 13927, Start Num: 7
Candidate Starts for Snape_17:
(5, 13742), (Start: 7 @13760 has 88 MA's), (12, 13796), (16, 13844),

Gene: StCroix_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for StCroix_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Stink_16 Start: 12447, Stop: 12641, Start Num: 7
Candidate Starts for Stink_16:
(Start: 7 @12447 has 88 MA's),

Gene: Swann_13 Start: 8707, Stop: 8913, Start Num: 7
Candidate Starts for Swann_13:
(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: TNguyen7_16 Start: 12125, Stop: 12304, Start Num: 7
Candidate Starts for TNguyen7_16:

(Start: 7 @12125 has 88 MA's), (12, 12161), (13, 12164), (19, 12269),

Gene: TWAMP_13 Start: 8707, Stop: 8913, Start Num: 7

Candidate Starts for TWAMP_13:

(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Takoda_13 Start: 8667, Stop: 8873, Start Num: 7

Candidate Starts for Takoda_13:

(3, 8619), (Start: 7 @8667 has 88 MA's), (17, 8760),

Gene: Toro_19 Start: 14171, Stop: 14332, Start Num: 7

Candidate Starts for Toro_19:

(Start: 7 @14171 has 88 MA's), (11, 14204), (13, 14210), (15, 14243),

Gene: Trike_14 Start: 10362, Stop: 10547, Start Num: 7

Candidate Starts for Trike_14:

(Start: 7 @10362 has 88 MA's),

Gene: UhSalsa_13 Start: 8707, Stop: 8913, Start Num: 7

Candidate Starts for UhSalsa_13:

(Start: 7 @8707 has 88 MA's), (17, 8800), (20, 8890),

Gene: Veracruz_16 Start: 12681, Stop: 12875, Start Num: 6

Candidate Starts for Veracruz_16:

(Start: 6 @12681 has 2 MA's), (Start: 7 @12696 has 88 MA's),

Gene: Wile_16 Start: 12497, Stop: 12694, Start Num: 7

Candidate Starts for Wile_16:

(Start: 7 @12497 has 88 MA's),

Gene: Xena_16 Start: 12484, Stop: 12681, Start Num: 7

Candidate Starts for Xena_16:

(Start: 7 @12484 has 88 MA's),

Gene: Yogi_13 Start: 8675, Stop: 8881, Start Num: 7

Candidate Starts for Yogi_13:

(3, 8627), (Start: 7 @8675 has 88 MA's),

Gene: Yoncess_13 Start: 8675, Stop: 8881, Start Num: 7

Candidate Starts for Yoncess_13:

(3, 8627), (Start: 7 @8675 has 88 MA's),