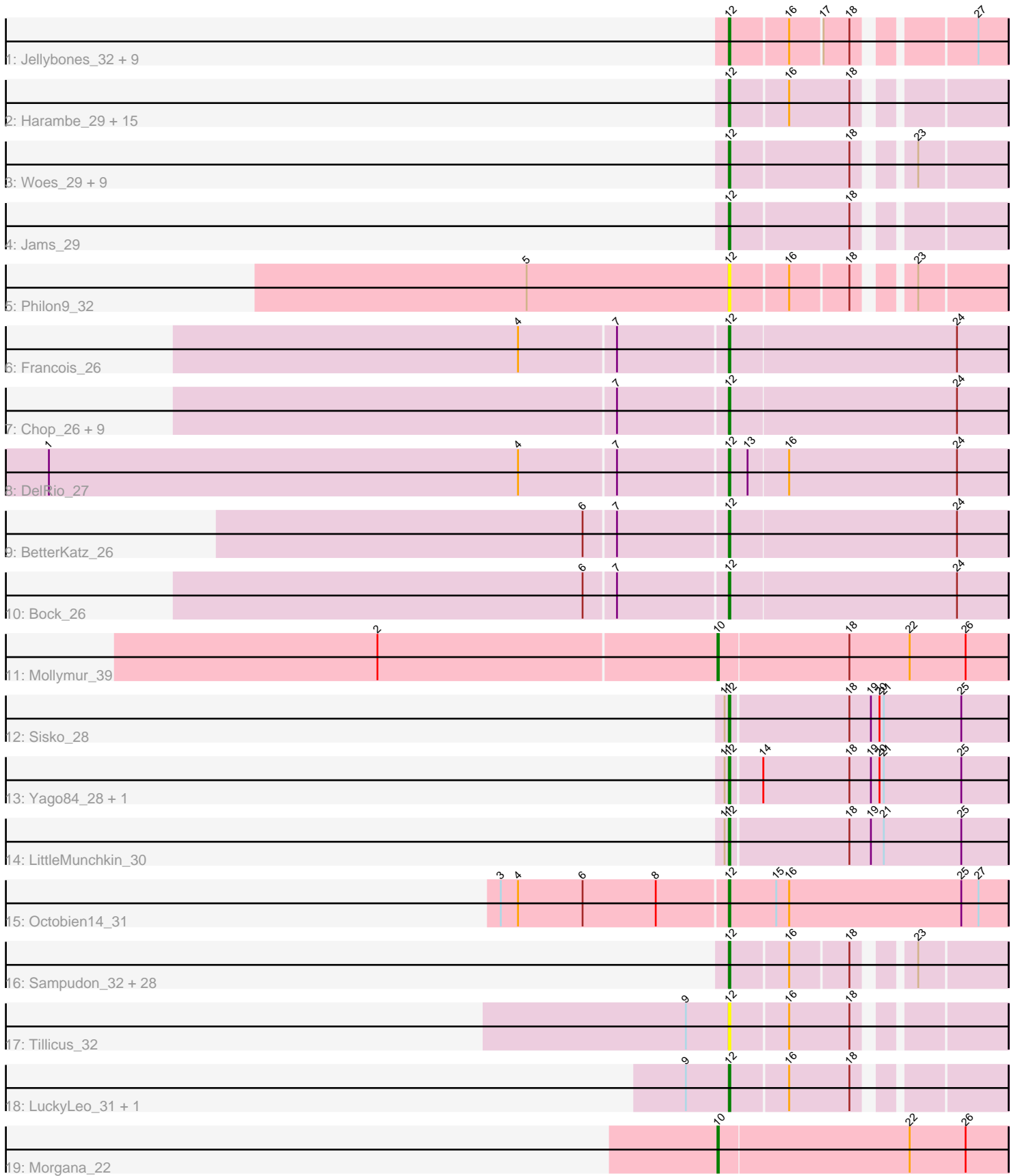


Pham 193916



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 193916 Report

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

Pham number 193916 has 91 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Jellybones_32, John316_32, Beaver_32, Boneham_32, FelixAlejandro_33, Butterball_32, CinnamonToast_33, BirksAndSocks_32, Msay19_33, Poland_33
- Track 2 : Harambe_29, Jormungandr_29, ParvusTarda_32, Luker_30, Anamika_29, Nimi13_29, Sticker17_29, Diabla_31, Hello_29, Lahirium_29, Neoevie_29, Hail2Pitt_29, Guillaume_29, GalacticEye_29, Newt_30, Teal_29
- Track 3 : Woes_29, Lidong_29, Shelley_29, Berries_29, Minos_30, Charianelly_29, Bianmat_29, Damp_29, MrWormie_29, Kaseim_30
- Track 4 : Jams_29
- Track 5 : Philon9_32
- Track 6 : Francois_26
- Track 7 : Chop_26, Mulch_26, Parada_26, WheatThin_26, Nadeem_26, Ayotoya_26, Brylie_26, NancyRae_26, GrandSlam_26, Hamood_26
- Track 8 : DelRio_27
- Track 9 : BetterKatz_26
- Track 10 : Bock_26
- Track 11 : Mollymur_39
- Track 12 : Sisko_28
- Track 13 : Yago84_28, AnClar_29
- Track 14 : LittleMunchkin_30
- Track 15 : Octobien14_31
- Track 16 : Sampudon_32, Yikes_33, NovaSharks_31, NorManre_33, Lambo_32, DaviePasture_32, Jamemuya19_30, Avian_30, Sadboi_32, Alephilan_29, MoiGyank_34, Patos_33, Rumi_31, OtterstedtS21_32, Fulcrum_33, Gibbin_33, Alyssamiracle_32, Lila22_31, BirthdayBoy_33, GOATification_33, Erutan_32, Mima20_32, Gretellyn_32, Genamy16_32, Jalebi_31, DoobyDoo_31, Ranch_32, Zany_31, Wojtek_31
- Track 17 : Tillicus_32
- Track 18 : LuckyLeo_31, Apeppi_29
- Track 19 : Morgana_22

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

The start number called the most often in the published annotations is 12, it was called in 81 of the 83 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alephilan_29, Alyssamiracle_32, AnClar_29, Anamika_29, Apeppi_29, Avian_30, Ayotoya_26, Beaver_32, Berries_29, BetterKatz_26, Bianmat_29, BirksAndSocks_32, BirthdayBoy_33, Bock_26, Boneham_32, Brylie_26, Butterball_32, Charianelly_29, Chop_26, CinnamonToast_33, Damp_29, DaviePasture_32, DelRio_27, Diabla_31, DoobyDoo_31, Erutan_32, FelixAlejandro_33, Francois_26, Fulcrum_33, GOATification_33, GalacticEye_29, Genamy16_32, Gibbin_33, GrandSlam_26, Gretellyn_32, Guillaume_29, Hail2Pitt_29, Hamood_26, Harambe_29, Hello_29, Jalebi_31, Jamemuya19_30, Jams_29, Jellybones_32, John316_32, Jormungandr_29, Kaseim_30, Lahirium_29, Lambo_32, Lidong_29, Lila22_31, LittleMunchkin_30, LuckyLeo_31, Luker_30, Mima20_32, Minos_30, MoiGyank_34, MrWormie_29, Msay19_33, Mulch_26, Nadeem_26, NancyRae_26, Neoevie_29, Newt_30, Nimi13_29, NorManre_33, NovaSharks_31, Octobien14_31, OtterstedtS21_32, Parada_26, ParvusTarda_32, Patos_33, Philon9_32, Poland_33, Ranch_32, Rumi_31, Sadboi_32, Sampudon_32, Shelley_29, Sisko_28, Sticker17_29, Teal_29, Tillicus_32, WheatThin_26, Woes_29, Wojtek_31, Yago84_28, Yikes_33, Zany_31,

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

-

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

- Mollymur_39, Morgana_22,

Summary by start number:

Start 10:

- Found in 2 of 91 (2.2%) of genes in pham
- Manual Annotations of this start: 2 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mollymur_39 (DL), Morgana_22 (DZ),

Start 12:

- Found in 89 of 91 (97.8%) of genes in pham
- Manual Annotations of this start: 81 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alephilan_29 (DV), Alyssamiracle_32 (DV), AnClar_29 (DR), Anamika_29 (CS3), Apeppi_29 (DV), Avian_30 (DV), Ayotoya_26 (DI), Beaver_32 (CS2), Berries_29 (CS3), BetterKatz_26 (DI), Bianmat_29 (CS3), BirksAndSocks_32 (CS2), BirthdayBoy_33 (DV), Bock_26 (DI), Boneham_32 (CS2), Brylie_26 (DI), Butterball_32 (CS2), Charianelly_29 (CS3), Chop_26 (DI), CinnamonToast_33 (CS2), Damp_29 (CS3), DaviePasture_32 (DV), DelRio_27 (DI), Diabla_31 (CS2), DoobyDoo_31 (DV), Erutan_32 (DV), FelixAlejandro_33 (CS2), Francois_26 (DI), Fulcrum_33 (DV), GOATification_33 (DV), GalacticEye_29 (CS3), Genamy16_32 (DV), Gibbin_33 (DV), GrandSlam_26 (DI), Gretellyn_32 (DV), Guillaume_29 (CS3), Hail2Pitt_29 (CS3), Hamood_26 (DI), Harambe_29 (CS3), Hello_29 (CS3), Jalebi_31 (DV), Jamemuya19_30 (DV), Jams_29 (CS3), Jellybones_32 (CS2), John316_32 (CS2), Jormungandr_29 (CS3), Kaseim_30 (CS3), Lahirium_29 (CS3), Lambo_32 (DV), Lidong_29 (CS3), Lila22_31 (DV), LittleMunchkin_30 (DR), LuckyLeo_31 (DV), Luker_30 (CS3), Mima20_32 (DV), Minos_30 (CS3), MoiGyank_34 (DV), MrWormie_29 (CS3), Msay19_33 (CS2), Mulch_26 (DI), Nadeem_26 (DI), NancyRae_26 (DI), Neoevie_29 (CS3), Newt_30

(CS3), Nimi13_29 (CS3), NorManre_33 (DV), NovaSharks_31 (DV), Octobien14_31 (DU1), OtterstedtS21_32 (DV), Parada_26 (DI), ParvusTarda_32 (DV), Patos_33 (DV), Philon9_32 (CS4), Poland_33 (CS2), Ranch_32 (DV), Rumi_31 (DV), Sadboi_32 (DV), Sampudon_32 (DV), Shelley_29 (CS3), Sisko_28 (DR), Sticker17_29 (CS3), Teal_29 (CS3), Tillicus_32 (DV), WheatThin_26 (DI), Woes_29 (CS3), Wojtek_31 (DV), Yago84_28 (DR), Yikes_33 (DV), Zany_31 (DV),

Summary by clusters:

There are 9 clusters represented in this pham: DL, DI, DZ, DU1, DV, CS4, DR, CS3, CS2,

Info for manual annotations of cluster CS2:

- Start number 12 was manually annotated 10 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 12 was manually annotated 24 times for cluster CS3.

Info for manual annotations of cluster DI:

- Start number 12 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DL:

- Start number 10 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DR:

- Start number 12 was manually annotated 4 times for cluster DR.

Info for manual annotations of cluster DU1:

- Start number 12 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster DV:

- Start number 12 was manually annotated 28 times for cluster DV.

Info for manual annotations of cluster DZ:

- Start number 10 was manually annotated 1 time for cluster DZ.

Gene Information:

Gene: Alephilan_29 Start: 28553, Stop: 28720, Start Num: 12

Candidate Starts for Alephilan_29:

(Start: 12 @28553 has 81 MA's), (16, 28592), (18, 28631), (23, 28661),

Gene: Alyssamiracle_32 Start: 27357, Stop: 27524, Start Num: 12

Candidate Starts for Alyssamiracle_32:

(Start: 12 @27357 has 81 MA's), (16, 27396), (18, 27435), (23, 27465),

Gene: AnClar_29 Start: 30143, Stop: 30334, Start Num: 12

Candidate Starts for AnClar_29:

(11, 30140), (Start: 12 @30143 has 81 MA's), (14, 30164), (18, 30224), (19, 30239), (20, 30245), (21, 30248), (25, 30302),

Gene: Anamika_29 Start: 38219, Stop: 38389, Start Num: 12

Candidate Starts for Anamika_29:

(Start: 12 @38219 has 81 MA's), (16, 38258), (18, 38300),

Gene: Apeppi_29 Start: 28695, Stop: 28865, Start Num: 12

Candidate Starts for Apeppi_29:

(9, 28665), (Start: 12 @28695 has 81 MA's), (16, 28734), (18, 28776),

Gene: Avian_30 Start: 27339, Stop: 27506, Start Num: 12

Candidate Starts for Avian_30:

(Start: 12 @27339 has 81 MA's), (16, 27378), (18, 27417), (23, 27447),

Gene: Ayotoya_26 Start: 23908, Stop: 24099, Start Num: 12

Candidate Starts for Ayotoya_26:

(7, 23833), (Start: 12 @23908 has 81 MA's), (24, 24064),

Gene: Beaver_32 Start: 37702, Stop: 37869, Start Num: 12

Candidate Starts for Beaver_32:

(Start: 12 @37702 has 81 MA's), (16, 37741), (17, 37762), (18, 37780), (27, 37849),

Gene: Berries_29 Start: 38189, Stop: 38359, Start Num: 12

Candidate Starts for Berries_29:

(Start: 12 @38189 has 81 MA's), (18, 38270), (23, 38300),

Gene: BetterKatz_26 Start: 23381, Stop: 23572, Start Num: 12

Candidate Starts for BetterKatz_26:

(6, 23285), (7, 23306), (Start: 12 @23381 has 81 MA's), (24, 23537),

Gene: Bianmat_29 Start: 38229, Stop: 38399, Start Num: 12

Candidate Starts for Bianmat_29:

(Start: 12 @38229 has 81 MA's), (18, 38310), (23, 38340),

Gene: BirksAndSocks_32 Start: 37676, Stop: 37843, Start Num: 12

Candidate Starts for BirksAndSocks_32:

(Start: 12 @37676 has 81 MA's), (16, 37715), (17, 37736), (18, 37754), (27, 37823),

Gene: BirthdayBoy_33 Start: 29379, Stop: 29546, Start Num: 12

Candidate Starts for BirthdayBoy_33:

(Start: 12 @29379 has 81 MA's), (16, 29418), (18, 29457), (23, 29487),

Gene: Bock_26 Start: 23131, Stop: 23322, Start Num: 12

Candidate Starts for Bock_26:

(6, 23035), (7, 23056), (Start: 12 @23131 has 81 MA's), (24, 23287),

Gene: Boneham_32 Start: 37675, Stop: 37842, Start Num: 12

Candidate Starts for Boneham_32:

(Start: 12 @37675 has 81 MA's), (16, 37714), (17, 37735), (18, 37753), (27, 37822),

Gene: Brylie_26 Start: 23122, Stop: 23313, Start Num: 12

Candidate Starts for Brylie_26:

(7, 23047), (Start: 12 @23122 has 81 MA's), (24, 23278),

Gene: Butterball_32 Start: 37675, Stop: 37842, Start Num: 12
Candidate Starts for Butterball_32:
(Start: 12 @37675 has 81 MA's), (16, 37714), (17, 37735), (18, 37753), (27, 37822),

Gene: Charianelly_29 Start: 37939, Stop: 38109, Start Num: 12
Candidate Starts for Charianelly_29:
(Start: 12 @37939 has 81 MA's), (18, 38020), (23, 38050),

Gene: Chop_26 Start: 23656, Stop: 23847, Start Num: 12
Candidate Starts for Chop_26:
(7, 23581), (Start: 12 @23656 has 81 MA's), (24, 23812),

Gene: CinnamonToast_33 Start: 37729, Stop: 37896, Start Num: 12
Candidate Starts for CinnamonToast_33:
(Start: 12 @37729 has 81 MA's), (16, 37768), (17, 37789), (18, 37807), (27, 37876),

Gene: Damp_29 Start: 37103, Stop: 37273, Start Num: 12
Candidate Starts for Damp_29:
(Start: 12 @37103 has 81 MA's), (18, 37184), (23, 37214),

Gene: DaviePasture_32 Start: 29178, Stop: 29345, Start Num: 12
Candidate Starts for DaviePasture_32:
(Start: 12 @29178 has 81 MA's), (16, 29217), (18, 29256), (23, 29286),

Gene: DelRio_27 Start: 24130, Stop: 24321, Start Num: 12
Candidate Starts for DelRio_27:
(1, 23662), (4, 23989), (7, 24055), (Start: 12 @24130 has 81 MA's), (13, 24142), (16, 24169), (24, 24286),

Gene: Diabla_31 Start: 37526, Stop: 37693, Start Num: 12
Candidate Starts for Diabla_31:
(Start: 12 @37526 has 81 MA's), (16, 37565), (18, 37604),

Gene: DoobyDoo_31 Start: 28328, Stop: 28495, Start Num: 12
Candidate Starts for DoobyDoo_31:
(Start: 12 @28328 has 81 MA's), (16, 28367), (18, 28406), (23, 28436),

Gene: Erutan_32 Start: 28838, Stop: 29005, Start Num: 12
Candidate Starts for Erutan_32:
(Start: 12 @28838 has 81 MA's), (16, 28877), (18, 28916), (23, 28946),

Gene: FelixAlejandro_33 Start: 37873, Stop: 38040, Start Num: 12
Candidate Starts for FelixAlejandro_33:
(Start: 12 @37873 has 81 MA's), (16, 37912), (17, 37933), (18, 37951), (27, 38020),

Gene: Francois_26 Start: 23145, Stop: 23336, Start Num: 12
Candidate Starts for Francois_26:
(4, 23004), (7, 23070), (Start: 12 @23145 has 81 MA's), (24, 23301),

Gene: Fulcrum_33 Start: 29356, Stop: 29523, Start Num: 12
Candidate Starts for Fulcrum_33:
(Start: 12 @29356 has 81 MA's), (16, 29395), (18, 29434), (23, 29464),

Gene: GOATification_33 Start: 29356, Stop: 29523, Start Num: 12
Candidate Starts for GOATification_33:
(Start: 12 @29356 has 81 MA's), (16, 29395), (18, 29434), (23, 29464),

Gene: GalacticEye_29 Start: 37901, Stop: 38071, Start Num: 12
Candidate Starts for GalacticEye_29:
(Start: 12 @37901 has 81 MA's), (16, 37940), (18, 37982),

Gene: Genamy16_32 Start: 27357, Stop: 27524, Start Num: 12
Candidate Starts for Genamy16_32:
(Start: 12 @27357 has 81 MA's), (16, 27396), (18, 27435), (23, 27465),

Gene: Gibbin_33 Start: 29455, Stop: 29622, Start Num: 12
Candidate Starts for Gibbin_33:
(Start: 12 @29455 has 81 MA's), (16, 29494), (18, 29533), (23, 29563),

Gene: GrandSlam_26 Start: 23656, Stop: 23847, Start Num: 12
Candidate Starts for GrandSlam_26:
(7, 23581), (Start: 12 @23656 has 81 MA's), (24, 23812),

Gene: Gretellyn_32 Start: 29714, Stop: 29881, Start Num: 12
Candidate Starts for Gretellyn_32:
(Start: 12 @29714 has 81 MA's), (16, 29753), (18, 29792), (23, 29822),

Gene: Guillaume_29 Start: 37951, Stop: 38121, Start Num: 12
Candidate Starts for Guillaume_29:
(Start: 12 @37951 has 81 MA's), (16, 37990), (18, 38032),

Gene: Hail2Pitt_29 Start: 38428, Stop: 38598, Start Num: 12
Candidate Starts for Hail2Pitt_29:
(Start: 12 @38428 has 81 MA's), (16, 38467), (18, 38509),

Gene: Hamood_26 Start: 23656, Stop: 23847, Start Num: 12
Candidate Starts for Hamood_26:
(7, 23581), (Start: 12 @23656 has 81 MA's), (24, 23812),

Gene: Harambe_29 Start: 38218, Stop: 38388, Start Num: 12
Candidate Starts for Harambe_29:
(Start: 12 @38218 has 81 MA's), (16, 38257), (18, 38299),

Gene: Hello_29 Start: 38180, Stop: 38350, Start Num: 12
Candidate Starts for Hello_29:
(Start: 12 @38180 has 81 MA's), (16, 38219), (18, 38261),

Gene: Jalebi_31 Start: 29890, Stop: 30057, Start Num: 12
Candidate Starts for Jalebi_31:
(Start: 12 @29890 has 81 MA's), (16, 29929), (18, 29968), (23, 29998),

Gene: Jamemuya19_30 Start: 26947, Stop: 27114, Start Num: 12
Candidate Starts for Jamemuya19_30:
(Start: 12 @26947 has 81 MA's), (16, 26986), (18, 27025), (23, 27055),

Gene: Jams_29 Start: 37389, Stop: 37559, Start Num: 12

Candidate Starts for Jams_29:
(Start: 12 @37389 has 81 MA's), (18, 37470),

Gene: Jellybones_32 Start: 37734, Stop: 37901, Start Num: 12
Candidate Starts for Jellybones_32:
(Start: 12 @37734 has 81 MA's), (16, 37773), (17, 37794), (18, 37812), (27, 37881),

Gene: John316_32 Start: 37687, Stop: 37854, Start Num: 12
Candidate Starts for John316_32:
(Start: 12 @37687 has 81 MA's), (16, 37726), (17, 37747), (18, 37765), (27, 37834),

Gene: Jormungandr_29 Start: 37933, Stop: 38103, Start Num: 12
Candidate Starts for Jormungandr_29:
(Start: 12 @37933 has 81 MA's), (16, 37972), (18, 38014),

Gene: Kaseim_30 Start: 37374, Stop: 37544, Start Num: 12
Candidate Starts for Kaseim_30:
(Start: 12 @37374 has 81 MA's), (18, 37455), (23, 37485),

Gene: Lahirium_29 Start: 38455, Stop: 38625, Start Num: 12
Candidate Starts for Lahirium_29:
(Start: 12 @38455 has 81 MA's), (16, 38494), (18, 38536),

Gene: Lambo_32 Start: 29377, Stop: 29544, Start Num: 12
Candidate Starts for Lambo_32:
(Start: 12 @29377 has 81 MA's), (16, 29416), (18, 29455), (23, 29485),

Gene: Lidong_29 Start: 38189, Stop: 38359, Start Num: 12
Candidate Starts for Lidong_29:
(Start: 12 @38189 has 81 MA's), (18, 38270), (23, 38300),

Gene: Lila22_31 Start: 29332, Stop: 29499, Start Num: 12
Candidate Starts for Lila22_31:
(Start: 12 @29332 has 81 MA's), (16, 29371), (18, 29410), (23, 29440),

Gene: LittleMunchkin_30 Start: 30714, Stop: 30905, Start Num: 12
Candidate Starts for LittleMunchkin_30:
(11, 30711), (Start: 12 @30714 has 81 MA's), (18, 30795), (19, 30810), (21, 30819), (25, 30873),

Gene: LuckyLeo_31 Start: 28695, Stop: 28865, Start Num: 12
Candidate Starts for LuckyLeo_31:
(9, 28665), (Start: 12 @28695 has 81 MA's), (16, 28734), (18, 28776),

Gene: Luker_30 Start: 38408, Stop: 38578, Start Num: 12
Candidate Starts for Luker_30:
(Start: 12 @38408 has 81 MA's), (16, 38447), (18, 38489),

Gene: Mima20_32 Start: 29079, Stop: 29246, Start Num: 12
Candidate Starts for Mima20_32:
(Start: 12 @29079 has 81 MA's), (16, 29118), (18, 29157), (23, 29187),

Gene: Minos_30 Start: 37931, Stop: 38101, Start Num: 12
Candidate Starts for Minos_30:

(Start: 12 @37931 has 81 MA's), (18, 38012), (23, 38042),

Gene: MoiGyank_34 Start: 29760, Stop: 29927, Start Num: 12

Candidate Starts for MoiGyank_34:

(Start: 12 @29760 has 81 MA's), (16, 29799), (18, 29838), (23, 29868),

Gene: Mollymur_39 Start: 35807, Stop: 36007, Start Num: 10

Candidate Starts for Mollymur_39:

(2, 35573), (Start: 10 @35807 has 2 MA's), (18, 35897), (22, 35939), (26, 35978),

Gene: Morgana_22 Start: 20847, Stop: 21047, Start Num: 10

Candidate Starts for Morgana_22:

(Start: 10 @20847 has 2 MA's), (22, 20979), (26, 21018),

Gene: MrWormie_29 Start: 37092, Stop: 37262, Start Num: 12

Candidate Starts for MrWormie_29:

(Start: 12 @37092 has 81 MA's), (18, 37173), (23, 37203),

Gene: Msay19_33 Start: 37868, Stop: 38035, Start Num: 12

Candidate Starts for Msay19_33:

(Start: 12 @37868 has 81 MA's), (16, 37907), (17, 37928), (18, 37946), (27, 38015),

Gene: Mulch_26 Start: 23122, Stop: 23313, Start Num: 12

Candidate Starts for Mulch_26:

(7, 23047), (Start: 12 @23122 has 81 MA's), (24, 23278),

Gene: Nadeem_26 Start: 23122, Stop: 23313, Start Num: 12

Candidate Starts for Nadeem_26:

(7, 23047), (Start: 12 @23122 has 81 MA's), (24, 23278),

Gene: NancyRae_26 Start: 23128, Stop: 23319, Start Num: 12

Candidate Starts for NancyRae_26:

(7, 23053), (Start: 12 @23128 has 81 MA's), (24, 23284),

Gene: Neoevie_29 Start: 38195, Stop: 38365, Start Num: 12

Candidate Starts for Neoevie_29:

(Start: 12 @38195 has 81 MA's), (16, 38234), (18, 38276),

Gene: Newt_30 Start: 38422, Stop: 38592, Start Num: 12

Candidate Starts for Newt_30:

(Start: 12 @38422 has 81 MA's), (16, 38461), (18, 38503),

Gene: Nimi13_29 Start: 37940, Stop: 38110, Start Num: 12

Candidate Starts for Nimi13_29:

(Start: 12 @37940 has 81 MA's), (16, 37979), (18, 38021),

Gene: NorManre_33 Start: 28961, Stop: 29128, Start Num: 12

Candidate Starts for NorManre_33:

(Start: 12 @28961 has 81 MA's), (16, 29000), (18, 29039), (23, 29069),

Gene: NovaSharks_31 Start: 26947, Stop: 27114, Start Num: 12

Candidate Starts for NovaSharks_31:

(Start: 12 @26947 has 81 MA's), (16, 26986), (18, 27025), (23, 27055),

Gene: Octobien14_31 Start: 26466, Stop: 26660, Start Num: 12
Candidate Starts for Octobien14_31:
(3, 26310), (4, 26322), (6, 26367), (8, 26418), (Start: 12 @26466 has 81 MA's), (15, 26499), (16, 26508), (25, 26628), (27, 26640),

Gene: OtterstedtS21_32 Start: 29036, Stop: 29203, Start Num: 12
Candidate Starts for OtterstedtS21_32:
(Start: 12 @29036 has 81 MA's), (16, 29075), (18, 29114), (23, 29144),

Gene: Parada_26 Start: 23122, Stop: 23313, Start Num: 12
Candidate Starts for Parada_26:
(7, 23047), (Start: 12 @23122 has 81 MA's), (24, 23278),

Gene: ParvusTarda_32 Start: 28506, Stop: 28673, Start Num: 12
Candidate Starts for ParvusTarda_32:
(Start: 12 @28506 has 81 MA's), (16, 28545), (18, 28584),

Gene: Patos_33 Start: 28961, Stop: 29128, Start Num: 12
Candidate Starts for Patos_33:
(Start: 12 @28961 has 81 MA's), (16, 29000), (18, 29039), (23, 29069),

Gene: Philon9_32 Start: 40001, Stop: 40168, Start Num: 12
Candidate Starts for Philon9_32:
(5, 39860), (Start: 12 @40001 has 81 MA's), (16, 40040), (18, 40079), (23, 40109),

Gene: Poland_33 Start: 37847, Stop: 38014, Start Num: 12
Candidate Starts for Poland_33:
(Start: 12 @37847 has 81 MA's), (16, 37886), (17, 37907), (18, 37925), (27, 37994),

Gene: Ranch_32 Start: 27860, Stop: 28027, Start Num: 12
Candidate Starts for Ranch_32:
(Start: 12 @27860 has 81 MA's), (16, 27899), (18, 27938), (23, 27968),

Gene: Rumi_31 Start: 26950, Stop: 27117, Start Num: 12
Candidate Starts for Rumi_31:
(Start: 12 @26950 has 81 MA's), (16, 26989), (18, 27028), (23, 27058),

Gene: Sadboi_32 Start: 29714, Stop: 29881, Start Num: 12
Candidate Starts for Sadboi_32:
(Start: 12 @29714 has 81 MA's), (16, 29753), (18, 29792), (23, 29822),

Gene: Sampudon_32 Start: 29890, Stop: 30057, Start Num: 12
Candidate Starts for Sampudon_32:
(Start: 12 @29890 has 81 MA's), (16, 29929), (18, 29968), (23, 29998),

Gene: Shelley_29 Start: 37416, Stop: 37586, Start Num: 12
Candidate Starts for Shelley_29:
(Start: 12 @37416 has 81 MA's), (18, 37497), (23, 37527),

Gene: Sisko_28 Start: 28150, Stop: 28341, Start Num: 12
Candidate Starts for Sisko_28:

(11, 28147), (Start: 12 @28150 has 81 MA's), (18, 28231), (19, 28246), (20, 28252), (21, 28255), (25, 28309),

Gene: Sticker17_29 Start: 37931, Stop: 38101, Start Num: 12

Candidate Starts for Sticker17_29:

(Start: 12 @37931 has 81 MA's), (16, 37970), (18, 38012),

Gene: Teal_29 Start: 38399, Stop: 38569, Start Num: 12

Candidate Starts for Teal_29:

(Start: 12 @38399 has 81 MA's), (16, 38438), (18, 38480),

Gene: Tillicus_32 Start: 28289, Stop: 28459, Start Num: 12

Candidate Starts for Tillicus_32:

(9, 28259), (Start: 12 @28289 has 81 MA's), (16, 28328), (18, 28370),

Gene: WheatThin_26 Start: 23122, Stop: 23313, Start Num: 12

Candidate Starts for WheatThin_26:

(7, 23047), (Start: 12 @23122 has 81 MA's), (24, 23278),

Gene: Woes_29 Start: 38450, Stop: 38620, Start Num: 12

Candidate Starts for Woes_29:

(Start: 12 @38450 has 81 MA's), (18, 38531), (23, 38561),

Gene: Wojtek_31 Start: 28585, Stop: 28752, Start Num: 12

Candidate Starts for Wojtek_31:

(Start: 12 @28585 has 81 MA's), (16, 28624), (18, 28663), (23, 28693),

Gene: Yago84_28 Start: 28224, Stop: 28415, Start Num: 12

Candidate Starts for Yago84_28:

(11, 28221), (Start: 12 @28224 has 81 MA's), (14, 28245), (18, 28305), (19, 28320), (20, 28326), (21, 28329), (25, 28383),

Gene: Yikes_33 Start: 29969, Stop: 30136, Start Num: 12

Candidate Starts for Yikes_33:

(Start: 12 @29969 has 81 MA's), (16, 30008), (18, 30047), (23, 30077),

Gene: Zany_31 Start: 29496, Stop: 29663, Start Num: 12

Candidate Starts for Zany_31:

(Start: 12 @29496 has 81 MA's), (16, 29535), (18, 29574), (23, 29604),