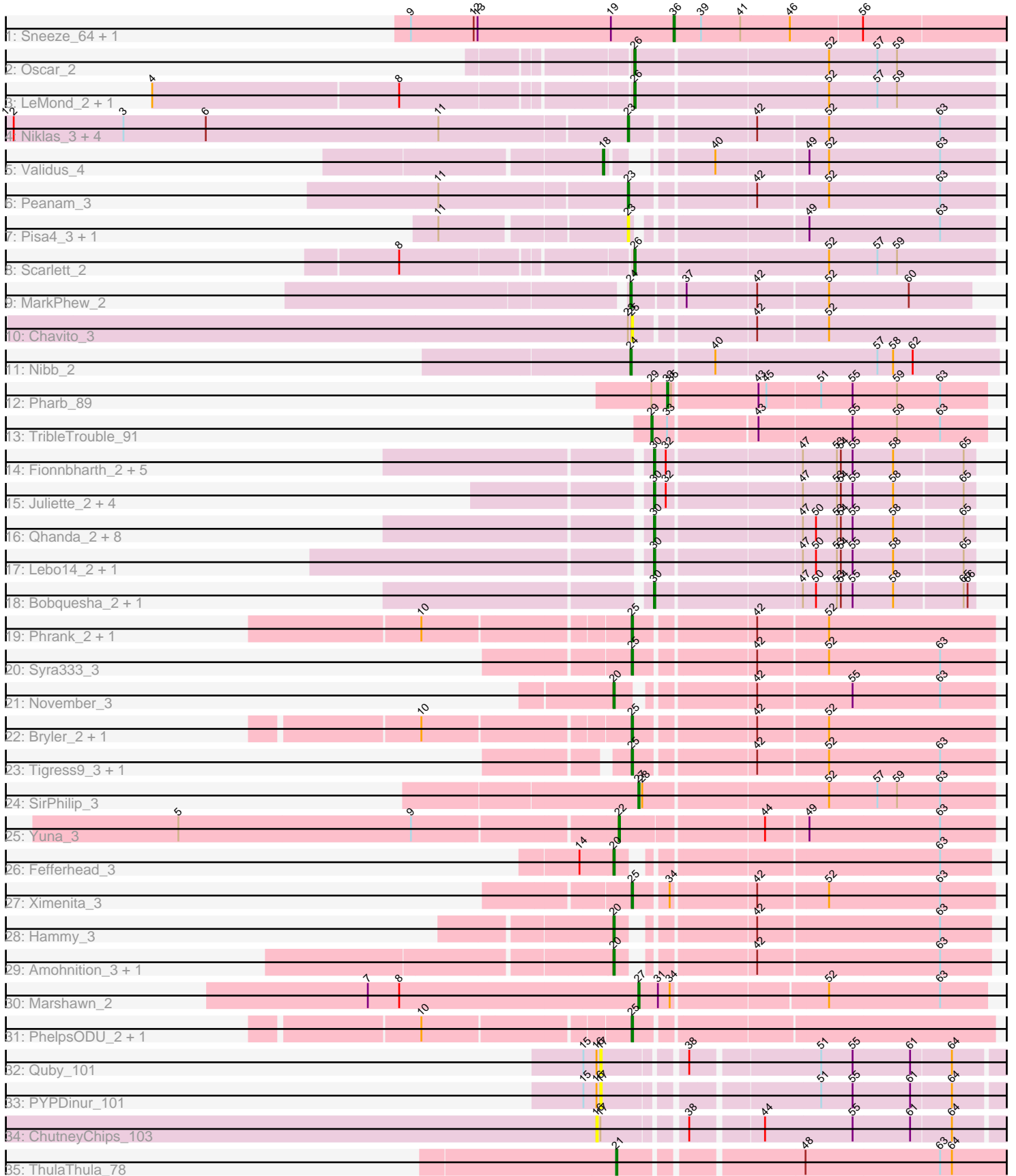


Pham 296559



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 296559 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296559 has 66 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Sneeze_64, Rabbs_65
- Track 2 : Oscar_2
- Track 3 : LeMond_2, KiSi_2
- Track 4 : Niklas_3, Shaobing_3, Richo_3, McMater_3, Dartin_3
- Track 5 : Validus_4
- Track 6 : Peanam_3
- Track 7 : Pisa4_3, Pisa1_3
- Track 8 : Scarlett_2
- Track 9 : MarkPhew_2
- Track 10 : Chavito_3
- Track 11 : Nibb_2
- Track 12 : Pharb_89
- Track 13 : TribbleTrouble_91
- Track 14 : Fionnbharth_2, Y2_02, Eponine_2, JF1_2, Y10_02, Wintermute_2
- Track 15 : Juliette_2, Kraw_2, Malthus_2, Ruthiejr_2, YasnayaPolyana_2
- Track 16 : Qhanda_2, Slarp_2, Taquito_2, Mitti_2, OmniCritical_2, SamScheppers_2, Chancellor_2, Cheetobro_2, Patt_2
- Track 17 : Lebo14_2, DanSyl44_2
- Track 18 : Bobquesha_2, Reptar3000_2
- Track 19 : Phrank_2, Tierra_2
- Track 20 : Syra333_3
- Track 21 : November_3
- Track 22 : Bryler_2, Cain_2
- Track 23 : Tigress9_3, Krueger_3
- Track 24 : SirPhilip_3
- Track 25 : Yuna_3
- Track 26 : Fefferhead_3
- Track 27 : Ximenita_3
- Track 28 : Hammy_3
- Track 29 : Amohnition_3, DarthP_3
- Track 30 : Marshawn_2
- Track 31 : PhelpsODU_2, Unicorn_2
- Track 32 : Quby_101
- Track 33 : PYPDinur_101
- Track 34 : ChutneyChips_103
- Track 35 : ThulaThula_78

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

The start number called the most often in the published annotations is 30, it was called in 21 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bobquesha_2, Chancellor_2, Cheetobro_2, DanSyl44_2, Eponine_2, Fionnbharth_2, JF1_2, Juliette_2, Kraw_2, Lebo14_2, Malthus_2, Mitti_2, OmniCritical_2, Patt_2, Qhanda_2, Reptar3000_2, Ruthiejr_2, SamScheppers_2, Slarp_2, Taquito_2, Wintermute_2, Y10_02, Y2_02, YasnayaPolyana_2,

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

-

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

- Amohnition_3, Bryler_2, Cain_2, Chavito_3, ChutneyChips_103, DARTH_P_3, Dartin_3, Fefferhead_3, Hammy_3, KiSi_2, Krueger_3, LeMond_2, MarkPhew_2, Marshawn_2, McMater_3, Nibb_2, Niklas_3, November_3, Oscar_2, PYPDinur_101, Peanam_3, Pharb_89, PhelpsODU_2, Phrank_2, Pisa1_3, Pisa4_3, Quby_101, Rabbs_65, Richo_3, Scarlett_2, Shaobing_3, SirPhilip_3, Sneeze_64, Syra333_3, ThulaThula_78, Tierra_2, Tigress9_3, TribbleTrouble_91, Unicorn_2, Validus_4, Ximenita_3, Yuna_3,

Summary by start number:

Start 16:

- Found in 3 of 66 (4.5%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: ChutneyChips_103 (L4),

Start 17:

- Found in 3 of 66 (4.5%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: PYPDinur_101 (L4), Quby_101 (L4),

Start 18:

- Found in 1 of 66 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Validus_4 (K1),

Start 20:

- Found in 5 of 66 (7.6%) of genes in pham
- Manual Annotations of this start: 5 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amohnition_3 (K6), DARTH_P_3 (K6), Fefferhead_3 (K6), Hammy_3 (K6), November_3 (K6),

Start 21:

- Found in 1 of 66 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ThulaThula_78 (P5),

Start 22:

- Found in 1 of 66 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yuna_3 (K6),

Start 23:

- Found in 9 of 66 (13.6%) of genes in pham
- Manual Annotations of this start: 3 of 53
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Dartin_3 (K1), McMater_3 (K1), Niklas_3 (K1), Peanam_3 (K1), Pisa1_3 (K1), Pisa4_3 (K1), Richo_3 (K1), Shaobing_3 (K1),

Start 24:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MarkPhew_2 (K1), Nibb_2 (K1),

Start 25:

- Found in 11 of 66 (16.7%) of genes in pham
- Manual Annotations of this start: 9 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bryler_2 (K6), Cain_2 (K6), Chavito_3 (K1), Krueger_3 (K6), PhelpsODU_2 (K6), Phrank_2 (K6), Syra333_3 (K6), Tierra_2 (K6), Tigress9_3 (K6), Unicorn_2 (K6), Ximenita_3 (K6),

Start 26:

- Found in 4 of 66 (6.1%) of genes in pham
- Manual Annotations of this start: 4 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KiSi_2 (K1), LeMond_2 (K1), Oscar_2 (K1), Scarlett_2 (K1),

Start 27:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marshawn_2 (K6), SirPhilip_3 (K6),

Start 29:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 50.0% of time when present
- Phage (with cluster) where this start called: TripleTrouble_91 (K3),

Start 30:

- Found in 24 of 66 (36.4%) of genes in pham
- Manual Annotations of this start: 21 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobquesha_2 (K4), Chancellor_2 (K4), Cheetobro_2 (K4), DanSyl44_2 (K4), Eponine_2 (K4), Fionnbharth_2 (K4), JF1_2 (K4), Juliette_2 (K4), Kraw_2 (K4), Lebo14_2 (K4), Malthus_2 (K4), Mitti_2 (K4), OmniCritical_2 (K4), Patt_2 (K4), Qhanda_2 (K4), Reptar3000_2 (K4), Ruthiejr_2 (K4), SamScheppers_2 (K4), Slarp_2 (K4), Taquito_2 (K4), Wintermute_2 (K4), Y10_02 (K4), Y2_02 (K4), YasnayaPolyana_2 (K4),

Start 33:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Pharb_89 (K3),

Start 36:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rabbs_65 (G1), Sneeze_64 (G1),

Summary by clusters:

There are 7 clusters represented in this pham: G1, P5, L4, K3, K1, K6, K4,

Info for manual annotations of cluster G1:

- Start number 36 was manually annotated 2 times for cluster G1.

Info for manual annotations of cluster K1:

- Start number 18 was manually annotated 1 time for cluster K1.
- Start number 23 was manually annotated 3 times for cluster K1.
- Start number 24 was manually annotated 2 times for cluster K1.
- Start number 26 was manually annotated 4 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 29 was manually annotated 1 time for cluster K3.
- Start number 33 was manually annotated 1 time for cluster K3.

Info for manual annotations of cluster K4:

- Start number 30 was manually annotated 21 times for cluster K4.

Info for manual annotations of cluster K6:

- Start number 20 was manually annotated 5 times for cluster K6.
- Start number 22 was manually annotated 1 time for cluster K6.
- Start number 25 was manually annotated 9 times for cluster K6.
- Start number 27 was manually annotated 2 times for cluster K6.

Info for manual annotations of cluster P5:

- Start number 21 was manually annotated 1 time for cluster P5.

Gene Information:

Gene: Amohnition_3 Start: 416, Stop: 673, Start Num: 20

Candidate Starts for Amohnition_3:

(Start: 20 @416 has 5 MA's), (42, 500), (63, 635),

Gene: Bobquesha_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Bobquesha_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473), (66, 476),

Gene: Bryler_2 Start: 388, Stop: 648, Start Num: 25

Candidate Starts for Bryler_2:

(10, 241), (Start: 25 @388 has 9 MA's), (42, 472), (52, 523),

Gene: Cain_2 Start: 388, Stop: 648, Start Num: 25

Candidate Starts for Cain_2:

(10, 241), (Start: 25 @388 has 9 MA's), (42, 472), (52, 523),

Gene: Chancellor_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Chancellor_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Chavito_3 Start: 474, Stop: 734, Start Num: 25

Candidate Starts for Chavito_3:

(Start: 23 @471 has 3 MA's), (Start: 25 @474 has 9 MA's), (42, 558), (52, 609),

Gene: Cheetobro_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Cheetobro_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: ChutneyChips_103 Start: 61749, Stop: 62033, Start Num: 16

Candidate Starts for ChutneyChips_103:

(16, 61749), (17, 61752), (38, 61806), (44, 61854), (55, 61920), (61, 61962), (64, 61992),

Gene: DanSyl44_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for DanSyl44_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: DarthP_3 Start: 416, Stop: 673, Start Num: 20

Candidate Starts for DarthP_3:

(Start: 20 @416 has 5 MA's), (42, 500), (63, 635),

Gene: Dartin_3 Start: 469, Stop: 732, Start Num: 23

Candidate Starts for Dartin_3:

(1, 1), (2, 7), (3, 91), (6, 154), (11, 331), (Start: 23 @469 has 3 MA's), (42, 556), (52, 607), (63, 691),

Gene: Eponine_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Eponine_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Fefferhead_3 Start: 410, Stop: 667, Start Num: 20

Candidate Starts for Fefferhead_3:

(14, 389), (Start: 20 @410 has 5 MA's), (63, 629),

Gene: Fionnbharth_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Fionnbharth_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Hammy_3 Start: 413, Stop: 670, Start Num: 20

Candidate Starts for Hammy_3:

(Start: 20 @413 has 5 MA's), (42, 497), (63, 632),

Gene: JF1_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for JF1_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Juliette_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Juliette_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: KiSi_2 Start: 346, Stop: 612, Start Num: 26

Candidate Starts for KiSi_2:

(4, 1), (8, 187), (Start: 26 @346 has 4 MA's), (52, 487), (57, 523), (59, 538),

Gene: Kraw_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Kraw_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Krueger_3 Start: 500, Stop: 760, Start Num: 25

Candidate Starts for Krueger_3:

(Start: 25 @500 has 9 MA's), (42, 584), (52, 635), (63, 719),

Gene: LeMond_2 Start: 346, Stop: 612, Start Num: 26

Candidate Starts for LeMond_2:

(4, 1), (8, 187), (Start: 26 @346 has 4 MA's), (52, 487), (57, 523), (59, 538),

Gene: Lebo14_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Lebo14_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Malthus_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Malthus_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: MarkPhew_2 Start: 323, Stop: 568, Start Num: 24

Candidate Starts for MarkPhew_2:

(Start: 24 @323 has 2 MA's), (37, 359), (42, 410), (52, 461), (60, 521),

Gene: Marshawn_2 Start: 329, Stop: 583, Start Num: 27

Candidate Starts for Marshawn_2:

(7, 125), (8, 149), (Start: 27 @329 has 2 MA's), (31, 344), (34, 353), (52, 464), (63, 548),

Gene: McMater_3 Start: 469, Stop: 732, Start Num: 23

Candidate Starts for McMater_3:

(1, 1), (2, 7), (3, 91), (6, 154), (11, 331), (Start: 23 @469 has 3 MA's), (42, 556), (52, 607), (63, 691),

Gene: Mitti_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Mitti_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Nibb_2 Start: 333, Stop: 605, Start Num: 24

Candidate Starts for Nibb_2:

(Start: 24 @333 has 2 MA's), (40, 393), (57, 513), (58, 525), (62, 540),

Gene: Niklas_3 Start: 469, Stop: 732, Start Num: 23

Candidate Starts for Niklas_3:

(1, 1), (2, 7), (3, 91), (6, 154), (11, 331), (Start: 23 @469 has 3 MA's), (42, 556), (52, 607), (63, 691),

Gene: November_3 Start: 424, Stop: 687, Start Num: 20

Candidate Starts for November_3:

(Start: 20 @424 has 5 MA's), (42, 511), (55, 580), (63, 646),

Gene: OmniCritical_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for OmniCritical_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Oscar_2 Start: 346, Stop: 612, Start Num: 26

Candidate Starts for Oscar_2:

(Start: 26 @346 has 4 MA's), (52, 487), (57, 523), (59, 538),

Gene: PYPDinur_101 Start: 61956, Stop: 62237, Start Num: 17

Candidate Starts for PYPDinur_101:

(15, 61944), (16, 61953), (17, 61956), (51, 62100), (55, 62124), (61, 62166), (64, 62196),

Gene: Patt_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Patt_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Peanam_3 Start: 469, Stop: 732, Start Num: 23

Candidate Starts for Peanam_3:

(11, 331), (Start: 23 @469 has 3 MA's), (42, 556), (52, 607), (63, 691),

Gene: Pharb_89 Start: 56013, Stop: 56249, Start Num: 33

Candidate Starts for Pharb_89:

(Start: 29 @56001 has 1 MA's), (Start: 33 @56013 has 1 MA's), (35, 56016), (43, 56079), (45, 56085), (51, 56124), (55, 56148), (59, 56181), (63, 56214),

Gene: PhelpsODU_2 Start: 389, Stop: 649, Start Num: 25

Candidate Starts for PhelpsODU_2:

(10, 242), (Start: 25 @389 has 9 MA's),

Gene: Phrank_2 Start: 394, Stop: 654, Start Num: 25

Candidate Starts for Phrank_2:

(10, 247), (Start: 25 @394 has 9 MA's), (42, 478), (52, 529),

Gene: Pisa1_3 Start: 442, Stop: 696, Start Num: 23

Candidate Starts for Pisa1_3:

(11, 310), (Start: 23 @442 has 3 MA's), (49, 556), (63, 655),

Gene: Pisa4_3 Start: 442, Stop: 696, Start Num: 23

Candidate Starts for Pisa4_3:

(11, 310), (Start: 23 @442 has 3 MA's), (49, 556), (63, 655),

Gene: Qhanda_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Qhanda_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Quby_101 Start: 61285, Stop: 61566, Start Num: 17

Candidate Starts for Quby_101:

(15, 61273), (16, 61282), (17, 61285), (38, 61339), (51, 61429), (55, 61453), (61, 61495), (64, 61525),

Gene: Rabbs_65 Start: 41915, Stop: 42166, Start Num: 36

Candidate Starts for Rabbs_65:

(9, 41714), (12, 41762), (13, 41765), (19, 41867), (Start: 36 @41915 has 2 MA's), (39, 41936), (41, 41966), (46, 42002), (56, 42056),

Gene: Reptar3000_2 Start: 250, Stop: 480, Start Num: 30

Candidate Starts for Reptar3000_2:

(Start: 30 @250 has 21 MA's), (47, 355), (50, 364), (53, 379), (54, 382), (55, 391), (58, 421), (65, 472), (66, 475),

Gene: Richo_3 Start: 469, Stop: 732, Start Num: 23

Candidate Starts for Richo_3:

(1, 1), (2, 7), (3, 91), (6, 154), (11, 331), (Start: 23 @469 has 3 MA's), (42, 556), (52, 607), (63, 691),

Gene: Ruthiejr_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Ruthiejr_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: SamScheppers_2 Start: 250, Stop: 480, Start Num: 30

Candidate Starts for SamScheppers_2:

(Start: 30 @250 has 21 MA's), (47, 355), (50, 364), (53, 379), (54, 382), (55, 391), (58, 421), (65, 472),

Gene: Scarlett_2 Start: 346, Stop: 612, Start Num: 26

Candidate Starts for Scarlett_2:

(8, 187), (Start: 26 @346 has 4 MA's), (52, 487), (57, 523), (59, 538),

Gene: Shaobing_3 Start: 469, Stop: 732, Start Num: 23

Candidate Starts for Shaobing_3:

(1, 1), (2, 7), (3, 91), (6, 154), (11, 331), (Start: 23 @469 has 3 MA's), (42, 556), (52, 607), (63, 691),

Gene: SirPhilip_3 Start: 468, Stop: 731, Start Num: 27

Candidate Starts for SirPhilip_3:

(Start: 27 @468 has 2 MA's), (28, 471), (52, 606), (57, 642), (59, 657), (63, 690),

Gene: Slarp_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Slarp_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Sneeze_64 Start: 41914, Stop: 42165, Start Num: 36

Candidate Starts for Sneeze_64:

(9, 41713), (12, 41761), (13, 41764), (19, 41866), (Start: 36 @41914 has 2 MA's), (39, 41935), (41, 41965), (46, 42001), (56, 42055),

Gene: Syra333_3 Start: 509, Stop: 769, Start Num: 25

Candidate Starts for Syra333_3:

(Start: 25 @509 has 9 MA's), (42, 593), (52, 644), (63, 728),

Gene: Taquito_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Taquito_2:

(Start: 30 @251 has 21 MA's), (47, 356), (50, 365), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: ThulaThula_78 Start: 49203, Stop: 49487, Start Num: 21

Candidate Starts for ThulaThula_78:

(Start: 21 @49203 has 1 MA's), (48, 49329), (63, 49431), (64, 49440),

Gene: Tierra_2 Start: 395, Stop: 655, Start Num: 25

Candidate Starts for Tierra_2:

(10, 248), (Start: 25 @395 has 9 MA's), (42, 479), (52, 530),

Gene: Tigress9_3 Start: 500, Stop: 760, Start Num: 25

Candidate Starts for Tigress9_3:

(Start: 25 @500 has 9 MA's), (42, 584), (52, 635), (63, 719),

Gene: TribelTrouble_91 Start: 58049, Stop: 58294, Start Num: 29

Candidate Starts for TribelTrouble_91:

(Start: 29 @58049 has 1 MA's), (Start: 33 @58061 has 1 MA's), (43, 58124), (55, 58193), (59, 58226), (63, 58259),

Gene: Unicorn_2 Start: 389, Stop: 649, Start Num: 25

Candidate Starts for Unicorn_2:

(10, 242), (Start: 25 @389 has 9 MA's),

Gene: Validus_4 Start: 682, Stop: 942, Start Num: 18

Candidate Starts for Validus_4:

(Start: 18 @682 has 1 MA's), (40, 736), (49, 802), (52, 817), (63, 901),

Gene: Wintermute_2 Start: 250, Stop: 480, Start Num: 30

Candidate Starts for Wintermute_2:

(Start: 30 @250 has 21 MA's), (32, 259), (47, 355), (53, 379), (54, 382), (55, 391), (58, 421), (65, 472),

Gene: Ximenita_3 Start: 509, Stop: 769, Start Num: 25

Candidate Starts for Ximenita_3:

(Start: 25 @509 has 9 MA's), (34, 533), (42, 593), (52, 644), (63, 728),

Gene: Y10_02 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Y10_02:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Y2_02 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for Y2_02:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: YasnayaPolyana_2 Start: 251, Stop: 481, Start Num: 30

Candidate Starts for YasnayaPolyana_2:

(Start: 30 @251 has 21 MA's), (32, 260), (47, 356), (53, 380), (54, 383), (55, 392), (58, 422), (65, 473),

Gene: Yuna_3 Start: 525, Stop: 797, Start Num: 22

Candidate Starts for Yuna_3:

(5, 201), (9, 378), (Start: 22 @525 has 1 MA's), (44, 627), (49, 657), (63, 756),