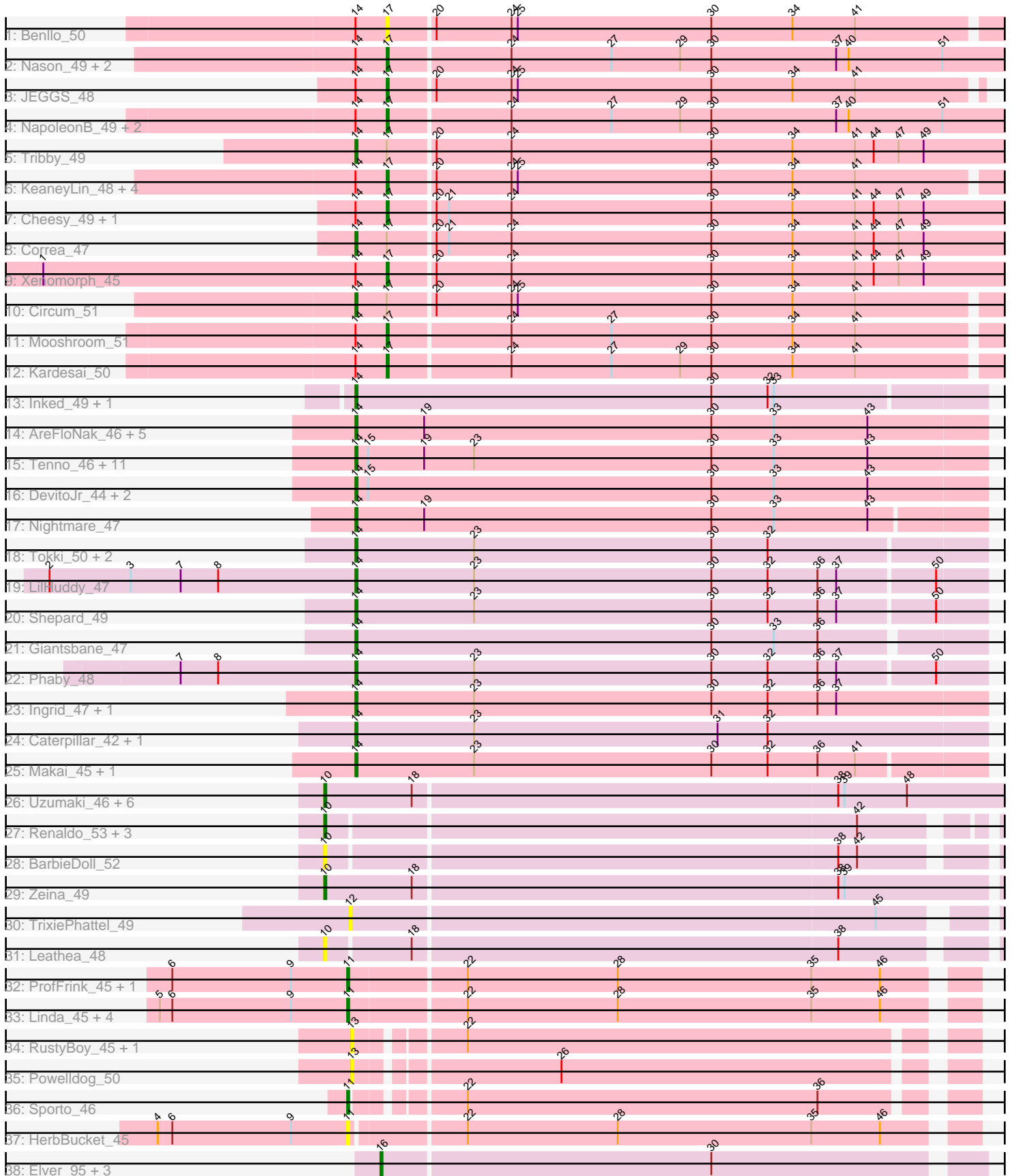


Pham 216066



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 216066 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216066 has 89 members, 28 are drafts.

Phages represented in each track:

- Track 1 : Benllo_50
- Track 2 : Nason_49, Arcadia_49, Elsa_49
- Track 3 : JEGGS_48
- Track 4 : NapoleonB_49, BenitoAntonio_49, Dynamite_49
- Track 5 : Tribby_49
- Track 6 : KeaneyLin_48, GoCrazy_48, Mudcat_46, Hankly_48, Heisenberger_48
- Track 7 : Cheesy_49, Bowling_48
- Track 8 : Correa_47
- Track 9 : Xenomorph_45
- Track 10 : Circum_51
- Track 11 : Mooshroom_51
- Track 12 : Kardesai_50
- Track 13 : Inked_49, Zippen_47
- Track 14 : AreFloNak_46, Nivinsha_46, Darby_44, Gordon_43, CastorTray_48, Breylor17_46
- Track 15 : Tenno_46, Teacup_46, Niktson_45, CapnMurica_43, Acai_47, Synepsis_44, ElephantMan_45, Tatanka_44, Issa_47, Brunswick_46, LucySwiss_47, MiniBagel_45
- Track 16 : DevitoJr_44, Trustiboi_45, ScienceWizSam_46
- Track 17 : Nightmare_47
- Track 18 : Tokki_50, Chlochlo_45, Bouchard_46
- Track 19 : LilHuddy_47
- Track 20 : Shepard_49
- Track 21 : Giantsbane_47
- Track 22 : Phaby_48
- Track 23 : Ingrid_47, Loretta_47
- Track 24 : Caterpillar_42, MediumFry_43
- Track 25 : Makai_45, Truckee_43
- Track 26 : Uzumaki_46, Phaila_51, Navi1117_51, Argan_47, GantcherGoblin_47, Tenney120_50, KevinMinion_49
- Track 27 : Renaldo_53, Kinny_52, Biscute_51, Lewando_50
- Track 28 : BarbieDoll_52
- Track 29 : Zeina_49
- Track 30 : TrixiePhattel_49
- Track 31 : Leathea_48
- Track 32 : ProfFrink_45, Boog_46
- Track 33 : Linda_45, Djungelskog_45, Raunak_48, BronxBay_45, MrAaronian_45

- Track 34 : RustyBoy_45, Natasha_45
- Track 35 : Powelldog_50
- Track 36 : Sporto_46
- Track 37 : HerbBucket_45
- Track 38 : Elver_95, Gandionco_93, Paella_97, Qui_97

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

The start number called the most often in the published annotations is 14, it was called in 32 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai_47, AreFloNak_46, Bouchard_46, Breylor17_46, Brunswick_46, CapnMurica_43, CastorTray_48, Caterpillar_42, Chlochlo_45, Circum_51, Correa_47, Darby_44, DevitoJr_44, ElephantMan_45, Giantsbane_47, Gordon_43, Ingrid_47, Inked_49, Issa_47, LilHuddy_47, Loretta_47, LucySwiss_47, Makai_45, MediumFry_43, MiniBagel_45, Nightmare_47, Niktson_45, Nivinsha_46, Phaby_48, ScienceWizSam_46, Shepard_49, Synopsis_44, Tatanka_44, Teacup_46, Tenno_46, Tokki_50, Tribby_49, Truckee_43, Trustiboi_45, Zippen_47,

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

- Arcadia_49, BenitoAntonio_49, Benllo_50, Bowling_48, Cheesy_49, Dynamite_49, Elsa_49, GoCrazy_48, Hankly_48, Heisenberger_48, JEGGS_48, Kardesai_50, KeaneyLin_48, Mooshroom_51, Mudcat_46, NapoleonB_49, Nason_49, Xenomorph_45,

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

- Argan_47, BarbieDoll_52, Biscute_51, Boog_46, BronxBay_45, Djungelskog_45, Elver_95, Gandionco_93, GantcherGoblin_47, HerbBucket_45, KevinMinion_49, Kinny_52, Leathea_48, Lewando_50, Linda_45, MrAaronian_45, Natasha_45, Navi1117_51, Paella_97, Phaila_51, Powelldog_50, ProfFrink_45, Qui_97, Raunak_48, Renaldo_53, RustyBoy_45, Sporto_46, Tenney120_50, TrixiePhattel_49, Uzumaki_46, Zeina_49,

Summary by start number:

Start 10:

- Found in 14 of 89 (15.7%) of genes in pham
- Manual Annotations of this start: 5 of 61
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argan_47 (AU6), BarbieDoll_52 (AU6), Biscute_51 (AU6), GantcherGoblin_47 (AU6), KevinMinion_49 (AU6), Kinny_52 (AU6), Leathea_48 (AU6), Lewando_50 (AU6), Navi1117_51 (AU6), Phaila_51 (AU6), Renaldo_53 (AU6), Tenney120_50 (AU6), Uzumaki_46 (AU6), Zeina_49 (AU6),

Start 11:

- Found in 9 of 89 (10.1%) of genes in pham
- Manual Annotations of this start: 6 of 61
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Boog_46 (AW), BronxBay_45 (AW), Djungelskog_45 (AW), HerbBucket_45 (AW), Linda_45 (AW), MrAaronian_45 (AW), ProfFrink_45 (AW), Raunak_48 (AW), Sporto_46 (AW),

Start 12:

- Found in 1 of 89 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TrixiePhattel_49 (AU6),

Start 13:

- Found in 3 of 89 (3.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Natasha_45 (AW), PowellDog_50 (AW), RustyBoy_45 (AW),

Start 14:

- Found in 58 of 89 (65.2%) of genes in pham
- Manual Annotations of this start: 32 of 61
- Called 69.0% of time when present
- Phage (with cluster) where this start called: Acai_47 (AU1), AreFloNak_46 (AU1), Bouchard_46 (AU2), Breylor17_46 (AU1), Brunswick_46 (AU1), CapnMurica_43 (AU1), CastorTray_48 (AU1), Caterpillar_42 (AU4), Chlochlo_45 (AU2), Circum_51 (AM), Correa_47 (AM), Darby_44 (AU1), DevitoJr_44 (AU1), ElephantMan_45 (AU1), Giantsbane_47 (AU2), Gordon_43 (AU1), Ingrid_47 (AU3), Inked_49 (AU), Issa_47 (AU1), LilHuddy_47 (AU2), Loretta_47 (AU3), LucySwiss_47 (AU1), Makai_45 (AU5), MediumFry_43 (AU4), MiniBagel_45 (AU1), Nightmare_47 (AU1), Niktson_45 (AU1), Nivinsha_46 (AU1), Phaby_48 (AU2), ScienceWizSam_46 (AU1), Shepard_49 (AU2), Synopsis_44 (AU1), Tatanka_44 (AU1), Teacup_46 (AU1), Tenno_46 (AU1), Tokki_50 (AU2), Tribby_49 (AM), Truckee_43 (AU5), Trustiboi_45 (AU1), Zippen_47 (AU3),

Start 16:

- Found in 4 of 89 (4.5%) of genes in pham
- Manual Annotations of this start: 2 of 61
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_95 (FK), Gandionco_93 (FK), Paella_97 (FK), Qui_97 (FK),

Start 17:

- Found in 21 of 89 (23.6%) of genes in pham
- Manual Annotations of this start: 16 of 61
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Arcadia_49 (AM), BenitoAntonio_49 (AM), Benllo_50 (AM), Bowling_48 (AM), Cheesy_49 (AM), Dynamite_49 (AM), Elsa_49 (AM), GoCrazy_48 (AM), Hankly_48 (AM), Heisenberger_48 (AM), JEGGS_48 (AM), Kardesai_50 (AM), KeaneyLin_48 (AM), Mooshroom_51 (AM), Mudcat_46 (AM), NapoleonB_49 (AM), Nason_49 (AM), Xenomorph_45 (AM),

Summary by clusters:

There are 10 clusters represented in this pham: AM, AU1, AU3, AU2, AU5, AU4, AW, AU6, AU, FK,

Info for manual annotations of cluster AM:

- Start number 14 was manually annotated 3 times for cluster AM.
- Start number 17 was manually annotated 16 times for cluster AM.

Info for manual annotations of cluster AU:

- Start number 14 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 14 was manually annotated 17 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 14 was manually annotated 5 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 14 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 14 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 14 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 10 was manually annotated 5 times for cluster AU6.

Info for manual annotations of cluster AW:

- Start number 11 was manually annotated 6 times for cluster AW.

Info for manual annotations of cluster FK:

- Start number 16 was manually annotated 2 times for cluster FK.

Gene Information:

Gene: Acai_47 Start: 34277, Stop: 34579, Start Num: 14

Candidate Starts for Acai_47:

(Start: 14 @34277 has 32 MA's), (15, 34283), (19, 34310), (23, 34334), (30, 34448), (33, 34478), (43, 34523),

Gene: Arcadia_49 Start: 32580, Stop: 32888, Start Num: 17

Candidate Starts for Arcadia_49:

(Start: 14 @32565 has 32 MA's), (Start: 17 @32580 has 16 MA's), (24, 32637), (27, 32685), (29, 32718), (30, 32733), (37, 32793), (40, 32799), (51, 32844),

Gene: AreFloNak_46 Start: 34044, Stop: 34346, Start Num: 14

Candidate Starts for AreFloNak_46:

(Start: 14 @34044 has 32 MA's), (19, 34077), (30, 34215), (33, 34245), (43, 34290),

Gene: Argan_47 Start: 32696, Stop: 33043, Start Num: 10

Candidate Starts for Argan_47:

(Start: 10 @32696 has 5 MA's), (18, 32738), (38, 32939), (39, 32942), (48, 32972),

Gene: BarbieDoll_52 Start: 34320, Stop: 34643, Start Num: 10

Candidate Starts for BarbieDoll_52:

(Start: 10 @34320 has 5 MA's), (38, 34560), (42, 34569),

Gene: BenitoAntonio_49 Start: 32116, Stop: 32424, Start Num: 17

Candidate Starts for BenitoAntonio_49:

(Start: 14 @32101 has 32 MA's), (Start: 17 @32116 has 16 MA's), (24, 32173), (27, 32221), (29, 32254), (30, 32269), (37, 32329), (40, 32335), (51, 32380),

Gene: Benllo_50 Start: 32800, Stop: 33102, Start Num: 17

Candidate Starts for Benllo_50:

(Start: 14 @32785 has 32 MA's), (Start: 17 @32800 has 16 MA's), (20, 32821), (24, 32857), (25, 32860), (30, 32953), (34, 32992), (41, 33022),

Gene: Biscute_51 Start: 33972, Stop: 34295, Start Num: 10

Candidate Starts for Biscute_51:

(Start: 10 @33972 has 5 MA's), (42, 34221),

Gene: Boog_46 Start: 31539, Stop: 31829, Start Num: 11

Candidate Starts for Boog_46:

(6, 31455), (9, 31512), (Start: 11 @31539 has 6 MA's), (22, 31593), (28, 31665), (35, 31758), (46, 31791),

Gene: Bouchard_46 Start: 34278, Stop: 34577, Start Num: 14

Candidate Starts for Bouchard_46:

(Start: 14 @34278 has 32 MA's), (23, 34335), (30, 34449), (32, 34476),

Gene: Bowling_48 Start: 32325, Stop: 32633, Start Num: 17

Candidate Starts for Bowling_48:

(Start: 14 @32310 has 32 MA's), (Start: 17 @32325 has 16 MA's), (20, 32346), (21, 32352), (24, 32382), (30, 32478), (34, 32517), (41, 32547), (44, 32556), (47, 32568), (49, 32580),

Gene: Breylor17_46 Start: 34842, Stop: 35144, Start Num: 14

Candidate Starts for Breylor17_46:

(Start: 14 @34842 has 32 MA's), (19, 34875), (30, 35013), (33, 35043), (43, 35088),

Gene: BronxBay_45 Start: 31837, Stop: 32127, Start Num: 11

Candidate Starts for BronxBay_45:

(5, 31747), (6, 31753), (9, 31810), (Start: 11 @31837 has 6 MA's), (22, 31891), (28, 31963), (35, 32056), (46, 32089),

Gene: Brunswick_46 Start: 33924, Stop: 34226, Start Num: 14

Candidate Starts for Brunswick_46:

(Start: 14 @33924 has 32 MA's), (15, 33930), (19, 33957), (23, 33981), (30, 34095), (33, 34125), (43, 34170),

Gene: CapnMurica_43 Start: 34822, Stop: 35124, Start Num: 14

Candidate Starts for CapnMurica_43:

(Start: 14 @34822 has 32 MA's), (15, 34828), (19, 34855), (23, 34879), (30, 34993), (33, 35023), (43, 35068),

Gene: CastorTray_48 Start: 34652, Stop: 34954, Start Num: 14

Candidate Starts for CastorTray_48:

(Start: 14 @34652 has 32 MA's), (19, 34685), (30, 34823), (33, 34853), (43, 34898),

Gene: Caterpillar_42 Start: 33123, Stop: 33425, Start Num: 14

Candidate Starts for Caterpillar_42:

(Start: 14 @33123 has 32 MA's), (23, 33180), (31, 33297), (32, 33321),

Gene: Cheesy_49 Start: 32301, Stop: 32609, Start Num: 17

Candidate Starts for Cheesy_49:

(Start: 14 @32286 has 32 MA's), (Start: 17 @32301 has 16 MA's), (20, 32322), (21, 32328), (24, 32358), (30, 32454), (34, 32493), (41, 32523), (44, 32532), (47, 32544), (49, 32556),

Gene: Chlochlo_45 Start: 34022, Stop: 34321, Start Num: 14

Candidate Starts for Chlochlo_45:

(Start: 14 @34022 has 32 MA's), (23, 34079), (30, 34193), (32, 34220),

Gene: Circum_51 Start: 32976, Stop: 33293, Start Num: 14

Candidate Starts for Circum_51:

(Start: 14 @32976 has 32 MA's), (Start: 17 @32991 has 16 MA's), (20, 33012), (24, 33048), (25, 33051), (30, 33144), (34, 33183), (41, 33213),

Gene: Correa_47 Start: 31432, Stop: 31755, Start Num: 14

Candidate Starts for Correa_47:

(Start: 14 @31432 has 32 MA's), (Start: 17 @31447 has 16 MA's), (20, 31468), (21, 31474), (24, 31504), (30, 31600), (34, 31639), (41, 31669), (44, 31678), (47, 31690), (49, 31702),

Gene: Darby_44 Start: 33824, Stop: 34126, Start Num: 14

Candidate Starts for Darby_44:

(Start: 14 @33824 has 32 MA's), (19, 33857), (30, 33995), (33, 34025), (43, 34070),

Gene: DevitoJr_44 Start: 34012, Stop: 34314, Start Num: 14

Candidate Starts for DevitoJr_44:

(Start: 14 @34012 has 32 MA's), (15, 34018), (30, 34183), (33, 34213), (43, 34258),

Gene: Djungelskog_45 Start: 31836, Stop: 32126, Start Num: 11

Candidate Starts for Djungelskog_45:

(5, 31746), (6, 31752), (9, 31809), (Start: 11 @31836 has 6 MA's), (22, 31890), (28, 31962), (35, 32055), (46, 32088),

Gene: Dynamite_49 Start: 32516, Stop: 32824, Start Num: 17

Candidate Starts for Dynamite_49:

(Start: 14 @32501 has 32 MA's), (Start: 17 @32516 has 16 MA's), (24, 32573), (27, 32621), (29, 32654), (30, 32669), (37, 32729), (40, 32735), (51, 32780),

Gene: ElephantMan_45 Start: 34497, Stop: 34799, Start Num: 14

Candidate Starts for ElephantMan_45:

(Start: 14 @34497 has 32 MA's), (15, 34503), (19, 34530), (23, 34554), (30, 34668), (33, 34698), (43, 34743),

Gene: Elsa_49 Start: 32580, Stop: 32888, Start Num: 17

Candidate Starts for Elsa_49:

(Start: 14 @32565 has 32 MA's), (Start: 17 @32580 has 16 MA's), (24, 32637), (27, 32685), (29, 32718), (30, 32733), (37, 32793), (40, 32799), (51, 32844),

Gene: Elver_95 Start: 54012, Stop: 54290, Start Num: 16

Candidate Starts for Elver_95:

(Start: 16 @54012 has 2 MA's), (30, 54168),

Gene: Gandionco_93 Start: 52868, Stop: 53146, Start Num: 16

Candidate Starts for Gandionco_93:

(Start: 16 @52868 has 2 MA's), (30, 53024),

Gene: GantcherGoblin_47 Start: 32895, Stop: 33227, Start Num: 10

Candidate Starts for GantcherGoblin_47:

(Start: 10 @32895 has 5 MA's), (18, 32937), (38, 33138), (39, 33141), (48, 33171),

Gene: Giantsbane_47 Start: 33208, Stop: 33504, Start Num: 14

Candidate Starts for Giantsbane_47:

(Start: 14 @33208 has 32 MA's), (30, 33379), (33, 33409), (36, 33430),

Gene: GoCrazy_48 Start: 32456, Stop: 32758, Start Num: 17

Candidate Starts for GoCrazy_48:

(Start: 14 @32441 has 32 MA's), (Start: 17 @32456 has 16 MA's), (20, 32477), (24, 32513), (25, 32516), (30, 32609), (34, 32648), (41, 32678),

Gene: Gordon_43 Start: 34647, Stop: 34946, Start Num: 14

Candidate Starts for Gordon_43:

(Start: 14 @34647 has 32 MA's), (19, 34680), (30, 34818), (33, 34848), (43, 34893),

Gene: Hankly_48 Start: 31730, Stop: 32032, Start Num: 17

Candidate Starts for Hankly_48:

(Start: 14 @31715 has 32 MA's), (Start: 17 @31730 has 16 MA's), (20, 31751), (24, 31787), (25, 31790), (30, 31883), (34, 31922), (41, 31952),

Gene: Heisenberger_48 Start: 32020, Stop: 32313, Start Num: 17

Candidate Starts for Heisenberger_48:

(Start: 14 @32005 has 32 MA's), (Start: 17 @32020 has 16 MA's), (20, 32041), (24, 32077), (25, 32080), (30, 32173), (34, 32212), (41, 32242),

Gene: HerbBucket_45 Start: 31539, Stop: 31826, Start Num: 11

Candidate Starts for HerbBucket_45:

(4, 31449), (6, 31455), (9, 31512), (Start: 11 @31539 has 6 MA's), (22, 31590), (28, 31662), (35, 31755), (46, 31788),

Gene: Ingrid_47 Start: 33951, Stop: 34253, Start Num: 14

Candidate Starts for Ingrid_47:

(Start: 14 @33951 has 32 MA's), (23, 34008), (30, 34122), (32, 34149), (36, 34173), (37, 34182),

Gene: Inked_49 Start: 35083, Stop: 35382, Start Num: 14

Candidate Starts for Inked_49:

(Start: 14 @35083 has 32 MA's), (30, 35254), (32, 35281), (33, 35284),

Gene: Issa_47 Start: 34116, Stop: 34418, Start Num: 14

Candidate Starts for Issa_47:

(Start: 14 @34116 has 32 MA's), (15, 34122), (19, 34149), (23, 34173), (30, 34287), (33, 34317), (43, 34362),

Gene: JEGGS_48 Start: 32075, Stop: 32368, Start Num: 17

Candidate Starts for JEGGS_48:

(Start: 14 @32060 has 32 MA's), (Start: 17 @32075 has 16 MA's), (20, 32096), (24, 32132), (25, 32135), (30, 32228), (34, 32267), (41, 32297),

Gene: Kardesai_50 Start: 32700, Stop: 33002, Start Num: 17

Candidate Starts for Kardesai_50:

(Start: 14 @32685 has 32 MA's), (Start: 17 @32700 has 16 MA's), (24, 32757), (27, 32805), (29, 32838), (30, 32853), (34, 32892), (41, 32922),

Gene: KeaneyLin_48 Start: 32456, Stop: 32758, Start Num: 17

Candidate Starts for KeaneyLin_48:

(Start: 14 @32441 has 32 MA's), (Start: 17 @32456 has 16 MA's), (20, 32477), (24, 32513), (25, 32516), (30, 32609), (34, 32648), (41, 32678),

Gene: KevinMinion_49 Start: 33653, Stop: 33994, Start Num: 10

Candidate Starts for KevinMinion_49:

(Start: 10 @33653 has 5 MA's), (18, 33695), (38, 33896), (39, 33899), (48, 33929),

Gene: Kinny_52 Start: 34815, Stop: 35138, Start Num: 10

Candidate Starts for Kinny_52:

(Start: 10 @34815 has 5 MA's), (42, 35064),

Gene: Leathea_48 Start: 32547, Stop: 32861, Start Num: 10

Candidate Starts for Leathea_48:

(Start: 10 @32547 has 5 MA's), (18, 32586), (38, 32787),

Gene: Lewando_50 Start: 34105, Stop: 34425, Start Num: 10

Candidate Starts for Lewando_50:

(Start: 10 @34105 has 5 MA's), (42, 34354),

Gene: LilHuddy_47 Start: 34159, Stop: 34458, Start Num: 14

Candidate Starts for LilHuddy_47:

(2, 34012), (3, 34051), (7, 34075), (8, 34093), (Start: 14 @34159 has 32 MA's), (23, 34216), (30, 34330), (32, 34357), (36, 34381), (37, 34390), (50, 34435),

Gene: Linda_45 Start: 31834, Stop: 32124, Start Num: 11

Candidate Starts for Linda_45:

(5, 31744), (6, 31750), (9, 31807), (Start: 11 @31834 has 6 MA's), (22, 31888), (28, 31960), (35, 32053), (46, 32086),

Gene: Loretta_47 Start: 33951, Stop: 34253, Start Num: 14

Candidate Starts for Loretta_47:

(Start: 14 @33951 has 32 MA's), (23, 34008), (30, 34122), (32, 34149), (36, 34173), (37, 34182),

Gene: LucySwiss_47 Start: 33918, Stop: 34220, Start Num: 14

Candidate Starts for LucySwiss_47:

(Start: 14 @33918 has 32 MA's), (15, 33924), (19, 33951), (23, 33975), (30, 34089), (33, 34119), (43, 34164),

Gene: Makai_45 Start: 34138, Stop: 34437, Start Num: 14
Candidate Starts for Makai_45:
(Start: 14 @34138 has 32 MA's), (23, 34195), (30, 34309), (32, 34336), (36, 34360), (41, 34378),

Gene: MediumFry_43 Start: 33426, Stop: 33728, Start Num: 14
Candidate Starts for MediumFry_43:
(Start: 14 @33426 has 32 MA's), (23, 33483), (31, 33600), (32, 33624),

Gene: MiniBagel_45 Start: 34804, Stop: 35106, Start Num: 14
Candidate Starts for MiniBagel_45:
(Start: 14 @34804 has 32 MA's), (15, 34810), (19, 34837), (23, 34861), (30, 34975), (33, 35005), (43, 35050),

Gene: Mooshroom_51 Start: 32700, Stop: 33002, Start Num: 17
Candidate Starts for Mooshroom_51:
(Start: 14 @32685 has 32 MA's), (Start: 17 @32700 has 16 MA's), (24, 32757), (27, 32805), (30, 32853), (34, 32892), (41, 32922),

Gene: MrAaronian_45 Start: 31836, Stop: 32126, Start Num: 11
Candidate Starts for MrAaronian_45:
(5, 31746), (6, 31752), (9, 31809), (Start: 11 @31836 has 6 MA's), (22, 31890), (28, 31962), (35, 32055), (46, 32088),

Gene: Mudcat_46 Start: 33433, Stop: 33726, Start Num: 17
Candidate Starts for Mudcat_46:
(Start: 14 @33418 has 32 MA's), (Start: 17 @33433 has 16 MA's), (20, 33454), (24, 33490), (25, 33493), (30, 33586), (34, 33625), (41, 33655),

Gene: NapoleonB_49 Start: 32516, Stop: 32824, Start Num: 17
Candidate Starts for NapoleonB_49:
(Start: 14 @32501 has 32 MA's), (Start: 17 @32516 has 16 MA's), (24, 32573), (27, 32621), (29, 32654), (30, 32669), (37, 32729), (40, 32735), (51, 32780),

Gene: Nason_49 Start: 32580, Stop: 32888, Start Num: 17
Candidate Starts for Nason_49:
(Start: 14 @32565 has 32 MA's), (Start: 17 @32580 has 16 MA's), (24, 32637), (27, 32685), (29, 32718), (30, 32733), (37, 32793), (40, 32799), (51, 32844),

Gene: Natasha_45 Start: 31568, Stop: 31843, Start Num: 13
Candidate Starts for Natasha_45:
(13, 31568), (22, 31613),

Gene: Navi1117_51 Start: 33598, Stop: 33939, Start Num: 10
Candidate Starts for Navi1117_51:
(Start: 10 @33598 has 5 MA's), (18, 33640), (38, 33841), (39, 33844), (48, 33874),

Gene: Nightmare_47 Start: 35063, Stop: 35362, Start Num: 14
Candidate Starts for Nightmare_47:
(Start: 14 @35063 has 32 MA's), (19, 35096), (30, 35234), (33, 35264), (43, 35309),

Gene: Niktson_45 Start: 34497, Stop: 34799, Start Num: 14
Candidate Starts for Niktson_45:

(Start: 14 @34497 has 32 MA's), (15, 34503), (19, 34530), (23, 34554), (30, 34668), (33, 34698), (43, 34743),

Gene: Nivinsha_46 Start: 34044, Stop: 34346, Start Num: 14

Candidate Starts for Nivinsha_46:

(Start: 14 @34044 has 32 MA's), (19, 34077), (30, 34215), (33, 34245), (43, 34290),

Gene: Paella_97 Start: 54602, Stop: 54880, Start Num: 16

Candidate Starts for Paella_97:

(Start: 16 @54602 has 2 MA's), (30, 54758),

Gene: Phaby_48 Start: 34705, Stop: 35004, Start Num: 14

Candidate Starts for Phaby_48:

(7, 34621), (8, 34639), (Start: 14 @34705 has 32 MA's), (23, 34762), (30, 34876), (32, 34903), (36, 34927), (37, 34936), (50, 34981),

Gene: Phaila_51 Start: 32979, Stop: 33320, Start Num: 10

Candidate Starts for Phaila_51:

(Start: 10 @32979 has 5 MA's), (18, 33021), (38, 33222), (39, 33225), (48, 33255),

Gene: Powelldog_50 Start: 32567, Stop: 32842, Start Num: 13

Candidate Starts for Powelldog_50:

(13, 32567), (26, 32657),

Gene: ProfFrink_45 Start: 31837, Stop: 32127, Start Num: 11

Candidate Starts for ProfFrink_45:

(6, 31753), (9, 31810), (Start: 11 @31837 has 6 MA's), (22, 31891), (28, 31963), (35, 32056), (46, 32089),

Gene: Qui_97 Start: 54602, Stop: 54880, Start Num: 16

Candidate Starts for Qui_97:

(Start: 16 @54602 has 2 MA's), (30, 54758),

Gene: Raunak_48 Start: 31534, Stop: 31824, Start Num: 11

Candidate Starts for Raunak_48:

(5, 31444), (6, 31450), (9, 31507), (Start: 11 @31534 has 6 MA's), (22, 31588), (28, 31660), (35, 31753), (46, 31786),

Gene: Renaldo_53 Start: 34414, Stop: 34734, Start Num: 10

Candidate Starts for Renaldo_53:

(Start: 10 @34414 has 5 MA's), (42, 34663),

Gene: RustyBoy_45 Start: 31549, Stop: 31824, Start Num: 13

Candidate Starts for RustyBoy_45:

(13, 31549), (22, 31594),

Gene: ScienceWizSam_46 Start: 34154, Stop: 34456, Start Num: 14

Candidate Starts for ScienceWizSam_46:

(Start: 14 @34154 has 32 MA's), (15, 34160), (30, 34325), (33, 34355), (43, 34400),

Gene: Shepard_49 Start: 34232, Stop: 34531, Start Num: 14

Candidate Starts for Shepard_49:

(Start: 14 @34232 has 32 MA's), (23, 34289), (30, 34403), (32, 34430), (36, 34454), (37, 34463), (50, 34508),

Gene: Sporto_46 Start: 33334, Stop: 33609, Start Num: 11

Candidate Starts for Sporto_46:

(Start: 11 @33334 has 6 MA's), (22, 33379), (36, 33547),

Gene: Synepsis_44 Start: 34166, Stop: 34468, Start Num: 14

Candidate Starts for Synepsis_44:

(Start: 14 @34166 has 32 MA's), (15, 34172), (19, 34199), (23, 34223), (30, 34337), (33, 34367), (43, 34412),

Gene: Tatanka_44 Start: 34336, Stop: 34638, Start Num: 14

Candidate Starts for Tatanka_44:

(Start: 14 @34336 has 32 MA's), (15, 34342), (19, 34369), (23, 34393), (30, 34507), (33, 34537), (43, 34582),

Gene: Teacup_46 Start: 34526, Stop: 34828, Start Num: 14

Candidate Starts for Teacup_46:

(Start: 14 @34526 has 32 MA's), (15, 34532), (19, 34559), (23, 34583), (30, 34697), (33, 34727), (43, 34772),

Gene: Tenney120_50 Start: 33195, Stop: 33536, Start Num: 10

Candidate Starts for Tenney120_50:

(Start: 10 @33195 has 5 MA's), (18, 33237), (38, 33438), (39, 33441), (48, 33471),

Gene: Tenno_46 Start: 34812, Stop: 35114, Start Num: 14

Candidate Starts for Tenno_46:

(Start: 14 @34812 has 32 MA's), (15, 34818), (19, 34845), (23, 34869), (30, 34983), (33, 35013), (43, 35058),

Gene: Tokki_50 Start: 34333, Stop: 34632, Start Num: 14

Candidate Starts for Tokki_50:

(Start: 14 @34333 has 32 MA's), (23, 34390), (30, 34504), (32, 34531),

Gene: Tribby_49 Start: 32243, Stop: 32566, Start Num: 14

Candidate Starts for Tribby_49:

(Start: 14 @32243 has 32 MA's), (Start: 17 @32258 has 16 MA's), (20, 32279), (24, 32315), (30, 32411), (34, 32450), (41, 32480), (44, 32489), (47, 32501), (49, 32513),

Gene: TrixiePhattel_49 Start: 32839, Stop: 33141, Start Num: 12

Candidate Starts for TrixiePhattel_49:

(12, 32839), (45, 33088),

Gene: Truckee_43 Start: 33926, Stop: 34225, Start Num: 14

Candidate Starts for Truckee_43:

(Start: 14 @33926 has 32 MA's), (23, 33983), (30, 34097), (32, 34124), (36, 34148), (41, 34166),

Gene: Trustiboi_45 Start: 34372, Stop: 34674, Start Num: 14

Candidate Starts for Trustiboi_45:

(Start: 14 @34372 has 32 MA's), (15, 34378), (30, 34543), (33, 34573), (43, 34618),

Gene: Uzumaki_46 Start: 32889, Stop: 33236, Start Num: 10

Candidate Starts for Uzumaki_46:

(Start: 10 @32889 has 5 MA's), (18, 32931), (38, 33132), (39, 33135), (48, 33165),

Gene: Xenomorph_45 Start: 31991, Stop: 32299, Start Num: 17

Candidate Starts for Xenomorph_45:

(1, 31826), (Start: 14 @31976 has 32 MA's), (Start: 17 @31991 has 16 MA's), (20, 32012), (24, 32048),
(30, 32144), (34, 32183), (41, 32213), (44, 32222), (47, 32234), (49, 32246),

Gene: Zeina_49 Start: 33207, Stop: 33545, Start Num: 10

Candidate Starts for Zeina_49:

(Start: 10 @33207 has 5 MA's), (18, 33249), (38, 33450), (39, 33453),

Gene: Zippen_47 Start: 34782, Stop: 35081, Start Num: 14

Candidate Starts for Zippen_47:

(Start: 14 @34782 has 32 MA's), (30, 34953), (32, 34980), (33, 34983),