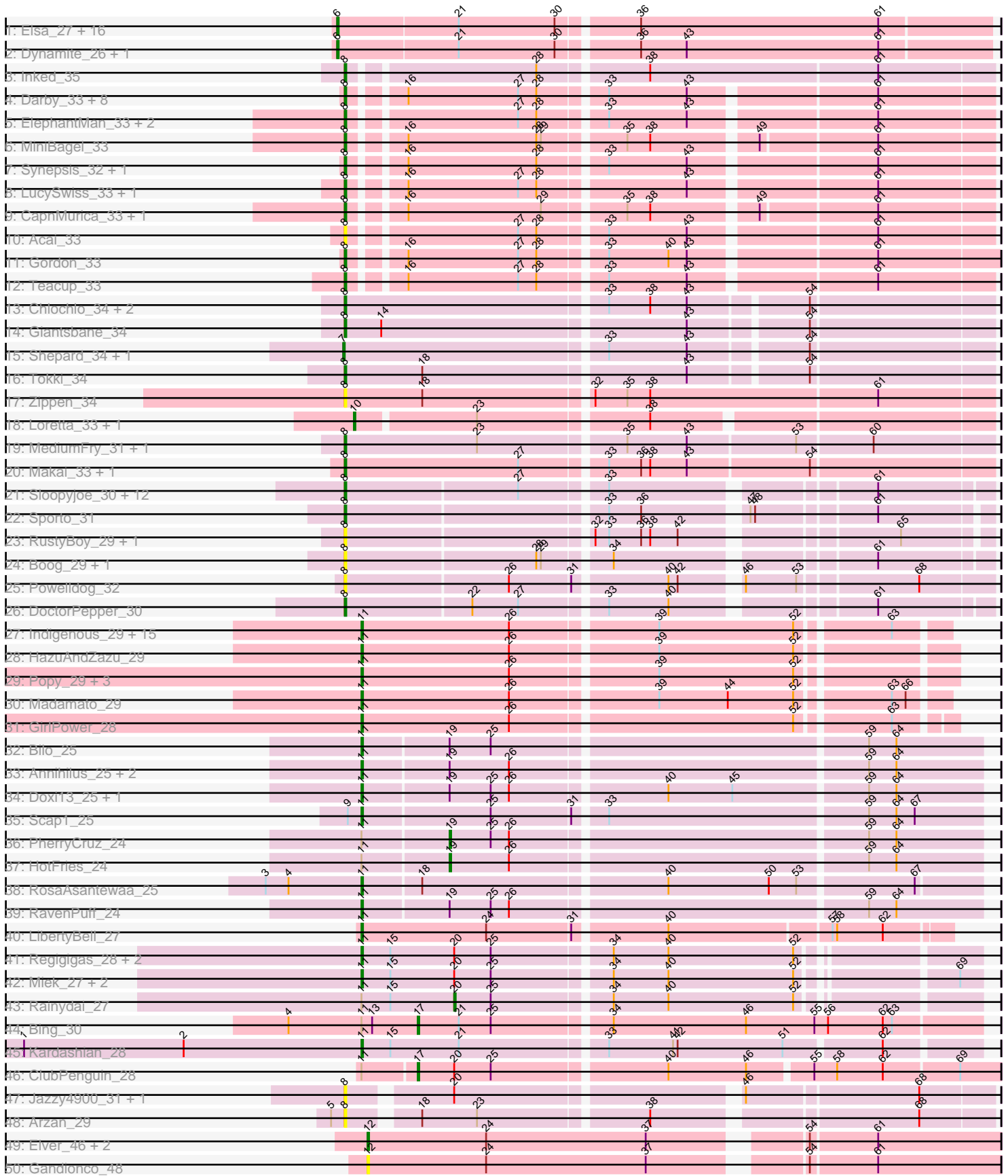


Pham 215959



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 215959 Report

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

Pham number 215959 has 128 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Elsa_27, Mooshroom_26, Circum_27, KeaneyLin_25, GoCrazy_25, BenitoAntonio_27, Kardesai_25, Bowling_26, Hankly_25, Arcadia_27, Mudcat_26, Tribby_27, Nason_27, Cheesy_27, JEGGS_26, Benllo_25, Heisenberger_26
- Track 2 : Dynamite_26, NapoleonB_26
- Track 3 : Inked_35
- Track 4 : Darby_33, Nivinsha_33, Issa_33, AreFloNak_33, CastorTray_35, ScienceWizSam_35, Trustiboi_34, DevitoJr_33, Tatanka_33
- Track 5 : ElephantMan_33, Brunswick_33, Niktson_33
- Track 6 : MiniBagel_33
- Track 7 : Synopsis_32, Breylor17_34
- Track 8 : LucySwiss_33, Nightmare_34
- Track 9 : CapnMurica_33, Tenno_34
- Track 10 : Acai_33
- Track 11 : Gordon_33
- Track 12 : Teacup_33
- Track 13 : Chlochlo_34, Phaby_34, Bouchard_34
- Track 14 : Giantsbane_34
- Track 15 : Shepard_34, LilHuddy_34
- Track 16 : Tokki_34
- Track 17 : Zippen_34
- Track 18 : Loretta_33, Ingrid_33
- Track 19 : MediumFry_31, Caterpillar_31
- Track 20 : Makai_33, Truckee_32
- Track 21 : Sloopyjoe_30, StarLord_30, Shiba_30, Djungelskog_30, Salk_30, Egad_30, Stayer_30, BronxBay_30, Raunak_31, Michelle_30, MrAaronian_30, ProfFrink_30, Linda_30
- Track 22 : Sporto_31
- Track 23 : RustyBoy_29, Natasha_29
- Track 24 : Boog_29, HerbBucket_29
- Track 25 : PowellDog_32
- Track 26 : DoctorPepper_30
- Track 27 : Indigenous_29, Maya_29, Meibysrarus_29, Jaylociraptor_29, Hoshi_29, FidgetOrca_29, TaidaOne_29, TonyStarch_29, Namu_29, IceWarrior_29, CherryBlossom_29, Rima_29, Esketit_29, Spectropatronm_29, OlympicHelado_29, TieDye_28
- Track 28 : HazuAndZazu_29
- Track 29 : Popy_29, Soshi_29, DrGrey_29, FrodoSwaggins_29

- Track 30 : Madamato_29
- Track 31 : GirlPower_28
- Track 32 : Bilo_25
- Track 33 : Annihilus_25, SheRa_25, Moozy_25
- Track 34 : Doxi13_25, GoblinVoyage_25
- Track 35 : Scap1_25
- Track 36 : PherryCruz_24
- Track 37 : HotFries_24
- Track 38 : RosaAsantewaa_25
- Track 39 : RavenPuff_24
- Track 40 : LibertyBell_27
- Track 41 : Regigigas_28, Thiqqums_27, CricKo_27
- Track 42 : Miek_27, SendItCS_26, FromIndy_28
- Track 43 : Rainydai_27
- Track 44 : Bing_30
- Track 45 : Kardashian_28
- Track 46 : ClubPenguin_28
- Track 47 : Jazzy4900_31, Sunny4976_30
- Track 48 : Arzan_29
- Track 49 : Elver_46, Paella_47, Qui_47
- Track 50 : Gandionco_48

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

The start number called the most often in the published annotations is 8, it was called in 39 of the 105 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai_33, AreFloNak_33, Arzan_29, Boog_29, Bouchard_34, Breylor17_34, BronxBay_30, Brunswick_33, CapnMurica_33, CastorTray_35, Caterpillar_31, Chlochlo_34, Darby_33, DevitoJr_33, Djungelskog_30, DoctorPepper_30, Egad_30, ElephantMan_33, Giantsbane_34, Gordon_33, HerbBucket_29, Inked_35, Issa_33, Jazzy4900_31, Linda_30, LucySwiss_33, Makai_33, MediumFry_31, Michelle_30, MiniBagel_33, MrAaronian_30, Natasha_29, Nightmare_34, Niktson_33, Nivinsha_33, Phaby_34, PowellDog_32, ProfFrink_30, Raunak_31, RustyBoy_29, Salk_30, ScienceWizSam_35, Shiba_30, Sloopyjoe_30, Sporto_31, StarLord_30, Stayer_30, Sunny4976_30, Synopsis_32, Tatanka_33, Teacup_33, Tenno_34, Tokki_34, Truckee_32, Trustiboi_34, Zippen_34,

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

-

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

- Annihilus_25, Arcadia_27, BenitoAntonio_27, Benllo_25, Bilo_25, Bing_30, Bowling_26, Cheesy_27, CherryBlossom_29, Circum_27, ClubPenguin_28, CricKo_27, Doxi13_25, DrGrey_29, Dynamite_26, Elsa_27, Elver_46, Esketit_29, FidgetOrca_29, FrodoSwaggins_29, FromIndy_28, Gandionco_48, GirlPower_28, GoCrazy_25, GoblinVoyage_25, Hankly_25, HazuAndZazu_29, Heisenberger_26, Hoshi_29, HotFries_24, IceWarrior_29, Indigenous_29, Ingrid_33, JEGGS_26, Jaylociraptor_29, Kardashian_28, Kardesai_25, KeaneyLin_25, LibertyBell_27,

LilHuddy_34, Loretta_33, Madamato_29, Maya_29, Meibysrarus_29, Miek_27, Mooshroom_26, Moozy_25, Mudcat_26, Namu_29, NapoleonB_26, Nason_27, OlympicHelado_29, Paella_47, PherryCruz_24, Popy_29, Qui_47, Rainydai_27, RavenPuff_24, Regigigas_28, Rima_29, RosaAsantewaa_25, Scap1_25, SendItCS_26, SheRa_25, Shepard_34, Soshi_29, Spectropatronm_29, TaidaOne_29, Thiqqums_27, TieDye_28, TonyStarch_29, Tribby_27,

Summary by start number:

Start 6:

- Found in 19 of 128 (14.8%) of genes in pham
- Manual Annotations of this start: 17 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia_27 (AM), BenitoAntonio_27 (AM), Benllo_25 (AM), Bowling_26 (AM), Cheesy_27 (AM), Circum_27 (AM), Dynamite_26 (AM), Elsa_27 (AM), GoCrazy_25 (AM), Hankly_25 (AM), Heisenberger_26 (AM), JEGGS_26 (AM), Kardesai_25 (AM), KeaneyLin_25 (AM), Mooshroom_26 (AM), Mudcat_26 (AM), NapoleonB_26 (AM), Nason_27 (AM), Tribby_27 (AM),

Start 7:

- Found in 2 of 128 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilHuddy_34 (AU2), Shepard_34 (AU2),

Start 8:

- Found in 56 of 128 (43.8%) of genes in pham
- Manual Annotations of this start: 39 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acai_33 (AU1), AreFloNak_33 (AU1), Arzan_29 (FI), Boog_29 (AW), Bouchard_34 (AU2), Breylor17_34 (AU1), BronxBay_30 (AW), Brunswick_33 (AU1), CapnMurica_33 (AU1), CastorTray_35 (AU1), Caterpillar_31 (AU4), Chlochlo_34 (AU2), Darby_33 (AU1), DevitoJr_33 (AU1), Djungelskog_30 (AW), DoctorPepper_30 (AW), Egad_30 (AW), ElephantMan_33 (AU1), Giantsbane_34 (AU2), Gordon_33 (AU1), HerbBucket_29 (AW), Inked_35 (AU), Issa_33 (AU1), Jazzy4900_31 (FI), Linda_30 (AW), LucySwiss_33 (AU1), Makai_33 (AU5), MediumFry_31 (AU4), Michelle_30 (AW), MiniBagel_33 (AU1), MrAaronian_30 (AW), Natasha_29 (AW), Nightmare_34 (AU1), Niktson_33 (AU1), Nivinsha_33 (AU1), Phaby_34 (AU2), PowellDog_32 (AW), ProfFrink_30 (AW), Raunak_31 (AW), RustyBoy_29 (AW), Salk_30 (AW), ScienceWizSam_35 (AU1), Shiba_30 (AW), Sloopyjoe_30 (AW), Sporto_31 (AW), StarLord_30 (AW), Stayer_30 (AW), Sunny4976_30 (FI), Synopsis_32 (AU1), Tatanka_33 (AU1), Teacup_33 (AU1), Tenno_34 (AU1), Tokki_34 (AU2), Truckee_32 (AU5), Trustiboi_34 (AU1), Zippen_34 (AU3),

Start 10:

- Found in 2 of 128 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ingrid_33 (AU3), Loretta_33 (AU3),

Start 11:

- Found in 45 of 128 (35.2%) of genes in pham
- Manual Annotations of this start: 38 of 105
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Annihilus_25 (BI2), Bilo_25 (BI2), CherryBlossom_29 (BI1), CricKo_27 (BI4), Doxi13_25 (BI2), DrGrey_29 (BI1), Esketit_29 (BI1), FidgetOrca_29 (BI1), FrodoSwaggins_29 (BI1), FromIndy_28 (BI4), GirlPower_28 (BI1), GoblinVoyage_25 (BI2), HazuAndZazu_29 (BI1), Hoshi_29 (BI1), IceWarrior_29 (BI1), Indigenous_29 (BI1), Jaylociraptor_29 (BI1), Kardashian_28 (BI6), LibertyBell_27 (BI3), Madamato_29 (BI1), Maya_29 (BI1), Meibysrarus_29 (BI1), Miek_27 (BI4), Moozy_25 (BI2), Namu_29 (BI1), OlympicHelado_29 (BI1), Popy_29 (BI1), RavenPuff_24 (BI2), Regigigas_28 (BI4), Rima_29 (BI1), RosaAsantewaa_25 (BI2), Scap1_25 (BI2), SendItCS_26 (BI4), SheRa_25 (BI2), Soshi_29 (BI1), Spectropatronm_29 (BI1), TaidaOne_29 (BI1), Thiqqums_27 (BI4), TieDye_28 (BI1), TonyStarch_29 (BI1),

Start 12:

- Found in 4 of 128 (3.1%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_46 (FK), Gandionco_48 (FK), Paella_47 (FK), Qui_47 (FK),

Start 17:

- Found in 2 of 128 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing_30 (BI5), ClubPenguin_28 (BI7),

Start 19:

- Found in 9 of 128 (7.0%) of genes in pham
- Manual Annotations of this start: 2 of 105
- Called 22.2% of time when present
- Phage (with cluster) where this start called: HotFries_24 (BI2), PherryCruz_24 (BI2),

Start 20:

- Found in 10 of 128 (7.8%) of genes in pham
- Manual Annotations of this start: 1 of 105
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Rainydai_27 (BI4),

Summary by clusters:

There are 17 clusters represented in this pham: AU, FK, AM, AU1, AU3, AU2, AU5, AU4, AW, B17, BI6, FI, BI4, BI5, BI2, BI3, BI1,

Info for manual annotations of cluster AM:

- Start number 6 was manually annotated 17 times for cluster AM.

Info for manual annotations of cluster AU:

- Start number 8 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 8 was manually annotated 17 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 7 was manually annotated 2 times for cluster AU2.
- Start number 8 was manually annotated 3 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 10 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 8 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 8 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AW:

- Start number 8 was manually annotated 14 times for cluster AW.

Info for manual annotations of cluster BI1:

- Start number 11 was manually annotated 23 times for cluster BI1.

Info for manual annotations of cluster BI2:

- Start number 11 was manually annotated 9 times for cluster BI2.
- Start number 19 was manually annotated 2 times for cluster BI2.

Info for manual annotations of cluster BI3:

- Start number 11 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:

- Start number 11 was manually annotated 4 times for cluster BI4.
- Start number 20 was manually annotated 1 time for cluster BI4.

Info for manual annotations of cluster BI5:

- Start number 17 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster BI6:

- Start number 11 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 17 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster FK:

- Start number 12 was manually annotated 2 times for cluster FK.

Gene Information:

Gene: Acai_33 Start: 28488, Stop: 28880, Start Num: 8

Candidate Starts for Acai_33:

(Start: 8 @28488 has 39 MA's), (27, 28590), (28, 28602), (33, 28641), (43, 28692), (61, 28806),

Gene: Annihilus_25 Start: 22331, Stop: 22720, Start Num: 11

Candidate Starts for Annihilus_25:

(Start: 11 @22331 has 38 MA's), (Start: 19 @22385 has 2 MA's), (26, 22424), (59, 22646), (64, 22664),

Gene: Arcadia_27 Start: 24836, Stop: 25252, Start Num: 6

Candidate Starts for Arcadia_27:

(Start: 6 @24836 has 17 MA's), (21, 24914), (30, 24977), (36, 25025), (61, 25181),

Gene: AreFloNak_33 Start: 28429, Stop: 28821, Start Num: 8

Candidate Starts for AreFloNak_33:

(Start: 8 @28429 has 39 MA's), (16, 28459), (27, 28531), (28, 28543), (33, 28582), (43, 28633), (61, 28747),

Gene: Arzan_29 Start: 25708, Stop: 26094, Start Num: 8

Candidate Starts for Arzan_29:

(5, 25699), (Start: 8 @25708 has 39 MA's), (18, 25747), (23, 25783), (38, 25888), (68, 26047),

Gene: BenitoAntonio_27 Start: 24452, Stop: 24868, Start Num: 6

Candidate Starts for BenitoAntonio_27:

(Start: 6 @24452 has 17 MA's), (21, 24530), (30, 24593), (36, 24641), (61, 24797),

Gene: Benllo_25 Start: 24736, Stop: 25152, Start Num: 6

Candidate Starts for Benllo_25:

(Start: 6 @24736 has 17 MA's), (21, 24814), (30, 24877), (36, 24925), (61, 25081),

Gene: Bilo_25 Start: 22822, Stop: 23211, Start Num: 11

Candidate Starts for Bilo_25:

(Start: 11 @22822 has 38 MA's), (Start: 19 @22876 has 2 MA's), (25, 22903), (59, 23137), (64, 23155),

Gene: Bing_30 Start: 25162, Stop: 25521, Start Num: 17

Candidate Starts for Bing_30:

(4, 25078), (Start: 11 @25126 has 38 MA's), (13, 25132), (Start: 17 @25162 has 2 MA's), (21, 25189), (25, 25210), (34, 25282), (46, 25369), (55, 25414), (56, 25423), (62, 25459), (63, 25465),

Gene: Boog_29 Start: 25583, Stop: 25972, Start Num: 8

Candidate Starts for Boog_29:

(Start: 8 @25583 has 39 MA's), (28, 25706), (29, 25709), (34, 25748), (61, 25901),

Gene: Bouchard_34 Start: 28632, Stop: 29036, Start Num: 8

Candidate Starts for Bouchard_34:

(Start: 8 @28632 has 39 MA's), (33, 28797), (38, 28824), (43, 28848), (54, 28920),

Gene: Bowling_26 Start: 24550, Stop: 24966, Start Num: 6

Candidate Starts for Bowling_26:

(Start: 6 @24550 has 17 MA's), (21, 24628), (30, 24691), (36, 24739), (61, 24895),

Gene: Breylor17_34 Start: 29035, Stop: 29427, Start Num: 8

Candidate Starts for Breylor17_34:

(Start: 8 @29035 has 39 MA's), (16, 29065), (28, 29149), (33, 29188), (43, 29239), (61, 29353),

Gene: BronxBay_30 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for BronxBay_30:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Brunswick_33 Start: 28500, Stop: 28892, Start Num: 8
Candidate Starts for Brunswick_33:
(Start: 8 @28500 has 39 MA's), (27, 28602), (28, 28614), (33, 28653), (43, 28704), (61, 28818),

Gene: CapnMurica_33 Start: 29586, Stop: 29975, Start Num: 8
Candidate Starts for CapnMurica_33:
(Start: 8 @29586 has 39 MA's), (16, 29616), (29, 29703), (35, 29751), (38, 29766), (49, 29829), (61, 29901),

Gene: CastorTray_35 Start: 28893, Stop: 29285, Start Num: 8
Candidate Starts for CastorTray_35:
(Start: 8 @28893 has 39 MA's), (16, 28923), (27, 28995), (28, 29007), (33, 29046), (43, 29097), (61, 29211),

Gene: Caterpillar_31 Start: 27666, Stop: 28076, Start Num: 8
Candidate Starts for Caterpillar_31:
(Start: 8 @27666 has 39 MA's), (23, 27753), (35, 27843), (43, 27882), (53, 27951), (60, 27999),

Gene: Cheesy_27 Start: 24551, Stop: 24967, Start Num: 6
Candidate Starts for Cheesy_27:
(Start: 6 @24551 has 17 MA's), (21, 24629), (30, 24692), (36, 24740), (61, 24896),

Gene: CherryBlossom_29 Start: 25276, Stop: 25635, Start Num: 11
Candidate Starts for CherryBlossom_29:
(Start: 11 @25276 has 38 MA's), (26, 25372), (39, 25462), (52, 25549), (63, 25603),

Gene: Chlochlo_34 Start: 28668, Stop: 29072, Start Num: 8
Candidate Starts for Chlochlo_34:
(Start: 8 @28668 has 39 MA's), (33, 28833), (38, 28860), (43, 28884), (54, 28956),

Gene: Circum_27 Start: 24558, Stop: 24974, Start Num: 6
Candidate Starts for Circum_27:
(Start: 6 @24558 has 17 MA's), (21, 24636), (30, 24699), (36, 24747), (61, 24903),

Gene: ClubPenguin_28 Start: 24936, Stop: 25301, Start Num: 17
Candidate Starts for ClubPenguin_28:
(Start: 11 @24903 has 38 MA's), (Start: 17 @24936 has 2 MA's), (Start: 20 @24960 has 1 MA's), (25, 24984), (40, 25092), (46, 25143), (55, 25182), (58, 25197), (62, 25227), (69, 25275),

Gene: CricKo_27 Start: 24163, Stop: 24540, Start Num: 11
Candidate Starts for CricKo_27:
(Start: 11 @24163 has 38 MA's), (15, 24181), (Start: 20 @24223 has 1 MA's), (25, 24247), (34, 24319), (40, 24355), (52, 24436),

Gene: Darby_33 Start: 28339, Stop: 28731, Start Num: 8
Candidate Starts for Darby_33:
(Start: 8 @28339 has 39 MA's), (16, 28369), (27, 28441), (28, 28453), (33, 28492), (43, 28543), (61, 28657),

Gene: DevitoJr_33 Start: 28510, Stop: 28902, Start Num: 8
Candidate Starts for DevitoJr_33:
(Start: 8 @28510 has 39 MA's), (16, 28540), (27, 28612), (28, 28624), (33, 28663), (43, 28714), (61, 28828),

Gene: Djungelskog_30 Start: 25582, Stop: 25971, Start Num: 8
Candidate Starts for Djungelskog_30:
(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: DoctorPepper_30 Start: 25582, Stop: 25971, Start Num: 8
Candidate Starts for DoctorPepper_30:
(Start: 8 @25582 has 39 MA's), (22, 25663), (27, 25693), (33, 25744), (40, 25783), (61, 25900),

Gene: Doxi13_25 Start: 22302, Stop: 22691, Start Num: 11
Candidate Starts for Doxi13_25:
(Start: 11 @22302 has 38 MA's), (Start: 19 @22356 has 2 MA's), (25, 22383), (26, 22395), (40, 22491),
(45, 22533), (59, 22617), (64, 22635),

Gene: DrGrey_29 Start: 25776, Stop: 26141, Start Num: 11
Candidate Starts for DrGrey_29:
(Start: 11 @25776 has 38 MA's), (26, 25872), (39, 25962), (52, 26049),

Gene: Dynamite_26 Start: 24359, Stop: 24775, Start Num: 6
Candidate Starts for Dynamite_26:
(Start: 6 @24359 has 17 MA's), (21, 24437), (30, 24500), (36, 24548), (43, 24578), (61, 24704),

Gene: Egad_30 Start: 25583, Stop: 25972, Start Num: 8
Candidate Starts for Egad_30:
(Start: 8 @25583 has 39 MA's), (27, 25694), (33, 25745), (61, 25901),

Gene: ElephantMan_33 Start: 29040, Stop: 29432, Start Num: 8
Candidate Starts for ElephantMan_33:
(Start: 8 @29040 has 39 MA's), (27, 29142), (28, 29154), (33, 29193), (43, 29244), (61, 29358),

Gene: Elsa_27 Start: 24836, Stop: 25252, Start Num: 6
Candidate Starts for Elsa_27:
(Start: 6 @24836 has 17 MA's), (21, 24914), (30, 24977), (36, 25025), (61, 25181),

Gene: Elver_46 Start: 37243, Stop: 37635, Start Num: 12
Candidate Starts for Elver_46:
(Start: 12 @37243 has 2 MA's), (24, 37321), (37, 37426), (54, 37513), (61, 37555),

Gene: Esketiit_29 Start: 25259, Stop: 25618, Start Num: 11
Candidate Starts for Esketiit_29:
(Start: 11 @25259 has 38 MA's), (26, 25355), (39, 25445), (52, 25532), (63, 25586),

Gene: FidgetOrca_29 Start: 25265, Stop: 25624, Start Num: 11
Candidate Starts for FidgetOrca_29:
(Start: 11 @25265 has 38 MA's), (26, 25361), (39, 25451), (52, 25538), (63, 25592),

Gene: FrodoSwaggins_29 Start: 25776, Stop: 26141, Start Num: 11
Candidate Starts for FrodoSwaggins_29:
(Start: 11 @25776 has 38 MA's), (26, 25872), (39, 25962), (52, 26049),

Gene: FromIndy_28 Start: 24151, Stop: 24528, Start Num: 11
Candidate Starts for FromIndy_28:

(Start: 11 @24151 has 38 MA's), (15, 24169), (Start: 20 @24211 has 1 MA's), (25, 24235), (34, 24307), (40, 24343), (52, 24424), (69, 24514),

Gene: Gandionco_48 Start: 37766, Stop: 38158, Start Num: 12

Candidate Starts for Gandionco_48:

(Start: 12 @37766 has 2 MA's), (24, 37844), (37, 37949), (54, 38036), (61, 38078),

Gene: Giantsbane_34 Start: 27528, Stop: 27932, Start Num: 8

Candidate Starts for Giantsbane_34:

(Start: 8 @27528 has 39 MA's), (14, 27552), (43, 27744), (54, 27816),

Gene: GirlPower_28 Start: 26747, Stop: 27109, Start Num: 11

Candidate Starts for GirlPower_28:

(Start: 11 @26747 has 38 MA's), (26, 26843), (52, 27020), (63, 27074),

Gene: GoCrazy_25 Start: 24359, Stop: 24775, Start Num: 6

Candidate Starts for GoCrazy_25:

(Start: 6 @24359 has 17 MA's), (21, 24437), (30, 24500), (36, 24548), (61, 24704),

Gene: GoblinVoyage_25 Start: 22302, Stop: 22691, Start Num: 11

Candidate Starts for GoblinVoyage_25:

(Start: 11 @22302 has 38 MA's), (Start: 19 @22356 has 2 MA's), (25, 22383), (26, 22395), (40, 22491), (45, 22533), (59, 22617), (64, 22635),

Gene: Gordon_33 Start: 29615, Stop: 30010, Start Num: 8

Candidate Starts for Gordon_33:

(Start: 8 @29615 has 39 MA's), (16, 29645), (27, 29717), (28, 29729), (33, 29768), (40, 29807), (43, 29819), (61, 29933),

Gene: Hankly_25 Start: 23581, Stop: 23997, Start Num: 6

Candidate Starts for Hankly_25:

(Start: 6 @23581 has 17 MA's), (21, 23659), (30, 23722), (36, 23770), (61, 23926),

Gene: HazuAndZazu_29 Start: 25777, Stop: 26142, Start Num: 11

Candidate Starts for HazuAndZazu_29:

(Start: 11 @25777 has 38 MA's), (26, 25873), (39, 25963), (52, 26050),

Gene: Heisenberger_26 Start: 24229, Stop: 24645, Start Num: 6

Candidate Starts for Heisenberger_26:

(Start: 6 @24229 has 17 MA's), (21, 24307), (30, 24370), (36, 24418), (61, 24574),

Gene: HerbBucket_29 Start: 25583, Stop: 25972, Start Num: 8

Candidate Starts for HerbBucket_29:

(Start: 8 @25583 has 39 MA's), (28, 25706), (29, 25709), (34, 25748), (61, 25901),

Gene: Hoshi_29 Start: 25259, Stop: 25618, Start Num: 11

Candidate Starts for Hoshi_29:

(Start: 11 @25259 has 38 MA's), (26, 25355), (39, 25445), (52, 25532), (63, 25586),

Gene: HotFries_24 Start: 22355, Stop: 22690, Start Num: 19

Candidate Starts for HotFries_24:

(Start: 11 @22301 has 38 MA's), (Start: 19 @22355 has 2 MA's), (26, 22394), (59, 22616), (64, 22634),

Gene: IceWarrior_29 Start: 25259, Stop: 25618, Start Num: 11
Candidate Starts for IceWarrior_29:
(Start: 11 @25259 has 38 MA's), (26, 25355), (39, 25445), (52, 25532), (63, 25586),

Gene: Indigenous_29 Start: 25259, Stop: 25618, Start Num: 11
Candidate Starts for Indigenous_29:
(Start: 11 @25259 has 38 MA's), (26, 25355), (39, 25445), (52, 25532), (63, 25586),

Gene: Ingrid_33 Start: 28232, Stop: 28624, Start Num: 10
Candidate Starts for Ingrid_33:
(Start: 10 @28232 has 2 MA's), (23, 28307), (38, 28412),

Gene: Inked_35 Start: 29245, Stop: 29646, Start Num: 8
Candidate Starts for Inked_35:
(Start: 8 @29245 has 39 MA's), (28, 29359), (38, 29425), (61, 29572),

Gene: Issa_33 Start: 28319, Stop: 28711, Start Num: 8
Candidate Starts for Issa_33:
(Start: 8 @28319 has 39 MA's), (16, 28349), (27, 28421), (28, 28433), (33, 28472), (43, 28523), (61, 28637),

Gene: JEGGS_26 Start: 24283, Stop: 24699, Start Num: 6
Candidate Starts for JEGGS_26:
(Start: 6 @24283 has 17 MA's), (21, 24361), (30, 24424), (36, 24472), (61, 24628),

Gene: Jaylociraptor_29 Start: 25259, Stop: 25618, Start Num: 11
Candidate Starts for Jaylociraptor_29:
(Start: 11 @25259 has 38 MA's), (26, 25355), (39, 25445), (52, 25532), (63, 25586),

Gene: Jazzy4900_31 Start: 26962, Stop: 27348, Start Num: 8
Candidate Starts for Jazzy4900_31:
(Start: 8 @26962 has 39 MA's), (Start: 20 @27022 has 1 MA's), (46, 27193), (68, 27301),

Gene: Kardashian_28 Start: 25209, Stop: 25595, Start Num: 11
Candidate Starts for Kardashian_28:
(1, 24987), (2, 25092), (Start: 11 @25209 has 38 MA's), (15, 25227), (21, 25272), (33, 25362), (41, 25404), (42, 25407), (51, 25476), (62, 25536),

Gene: Kardesai_25 Start: 23962, Stop: 24378, Start Num: 6
Candidate Starts for Kardesai_25:
(Start: 6 @23962 has 17 MA's), (21, 24040), (30, 24103), (36, 24151), (61, 24307),

Gene: KeaneyLin_25 Start: 24359, Stop: 24775, Start Num: 6
Candidate Starts for KeaneyLin_25:
(Start: 6 @24359 has 17 MA's), (21, 24437), (30, 24500), (36, 24548), (61, 24704),

Gene: LibertyBell_27 Start: 24107, Stop: 24475, Start Num: 11
Candidate Starts for LibertyBell_27:
(Start: 11 @24107 has 38 MA's), (24, 24188), (31, 24242), (40, 24299), (57, 24401), (58, 24404), (62, 24434),

Gene: LilHuddy_34 Start: 28688, Stop: 29092, Start Num: 7
Candidate Starts for LilHuddy_34:

(Start: 7 @28688 has 2 MA's), (33, 28853), (43, 28904), (54, 28976),

Gene: Linda_30 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for Linda_30:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Loretta_33 Start: 28232, Stop: 28624, Start Num: 10

Candidate Starts for Loretta_33:

(Start: 10 @28232 has 2 MA's), (23, 28307), (38, 28412),

Gene: LucySwiss_33 Start: 28343, Stop: 28735, Start Num: 8

Candidate Starts for LucySwiss_33:

(Start: 8 @28343 has 39 MA's), (16, 28373), (27, 28445), (28, 28457), (43, 28547), (61, 28661),

Gene: Madamoto_29 Start: 25237, Stop: 25596, Start Num: 11

Candidate Starts for Madamoto_29:

(Start: 11 @25237 has 38 MA's), (26, 25333), (39, 25423), (44, 25468), (52, 25510), (63, 25564), (66, 25573),

Gene: Makai_33 Start: 28464, Stop: 28874, Start Num: 8

Candidate Starts for Makai_33:

(Start: 8 @28464 has 39 MA's), (27, 28578), (33, 28629), (36, 28650), (38, 28656), (43, 28680), (54, 28758),

Gene: Maya_29 Start: 25273, Stop: 25632, Start Num: 11

Candidate Starts for Maya_29:

(Start: 11 @25273 has 38 MA's), (26, 25369), (39, 25459), (52, 25546), (63, 25600),

Gene: MediumFry_31 Start: 27668, Stop: 28078, Start Num: 8

Candidate Starts for MediumFry_31:

(Start: 8 @27668 has 39 MA's), (23, 27755), (35, 27845), (43, 27884), (53, 27953), (60, 28001),

Gene: Meibysrarus_29 Start: 25259, Stop: 25618, Start Num: 11

Candidate Starts for Meibysrarus_29:

(Start: 11 @25259 has 38 MA's), (26, 25355), (39, 25445), (52, 25532), (63, 25586),

Gene: Michelle_30 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for Michelle_30:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Miek_27 Start: 24163, Stop: 24540, Start Num: 11

Candidate Starts for Miek_27:

(Start: 11 @24163 has 38 MA's), (15, 24181), (Start: 20 @24223 has 1 MA's), (25, 24247), (34, 24319), (40, 24355), (52, 24436), (69, 24526),

Gene: MiniBagel_33 Start: 29565, Stop: 29954, Start Num: 8

Candidate Starts for MiniBagel_33:

(Start: 8 @29565 has 39 MA's), (16, 29595), (28, 29679), (29, 29682), (35, 29730), (38, 29745), (49, 29808), (61, 29880),

Gene: Mooshroom_26 Start: 23962, Stop: 24378, Start Num: 6

Candidate Starts for Mooshroom_26:

(Start: 6 @23962 has 17 MA's), (21, 24040), (30, 24103), (36, 24151), (61, 24307),

Gene: Moozy_25 Start: 22318, Stop: 22707, Start Num: 11
Candidate Starts for Moozy_25:
(Start: 11 @22318 has 38 MA's), (Start: 19 @22372 has 2 MA's), (26, 22411), (59, 22633), (64, 22651),

Gene: MrAaronian_30 Start: 25582, Stop: 25971, Start Num: 8
Candidate Starts for MrAaronian_30:
(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Mudcat_26 Start: 26260, Stop: 26676, Start Num: 6
Candidate Starts for Mudcat_26:
(Start: 6 @26260 has 17 MA's), (21, 26338), (30, 26401), (36, 26449), (61, 26605),

Gene: Namo_29 Start: 25265, Stop: 25624, Start Num: 11
Candidate Starts for Namo_29:
(Start: 11 @25265 has 38 MA's), (26, 25361), (39, 25451), (52, 25538), (63, 25592),

Gene: NapoleonB_26 Start: 24359, Stop: 24775, Start Num: 6
Candidate Starts for NapoleonB_26:
(Start: 6 @24359 has 17 MA's), (21, 24437), (30, 24500), (36, 24548), (43, 24578), (61, 24704),

Gene: Nason_27 Start: 24836, Stop: 25252, Start Num: 6
Candidate Starts for Nason_27:
(Start: 6 @24836 has 17 MA's), (21, 24914), (30, 24977), (36, 25025), (61, 25181),

Gene: Natasha_29 Start: 25024, Stop: 25410, Start Num: 8
Candidate Starts for Natasha_29:
(Start: 8 @25024 has 39 MA's), (32, 25177), (33, 25186), (36, 25207), (38, 25213), (42, 25231), (65, 25357),

Gene: Nightmare_34 Start: 28878, Stop: 29270, Start Num: 8
Candidate Starts for Nightmare_34:
(Start: 8 @28878 has 39 MA's), (16, 28908), (27, 28980), (28, 28992), (43, 29082), (61, 29196),

Gene: Niktson_33 Start: 29040, Stop: 29432, Start Num: 8
Candidate Starts for Niktson_33:
(Start: 8 @29040 has 39 MA's), (27, 29142), (28, 29154), (33, 29193), (43, 29244), (61, 29358),

Gene: Nivinsha_33 Start: 28429, Stop: 28821, Start Num: 8
Candidate Starts for Nivinsha_33:
(Start: 8 @28429 has 39 MA's), (16, 28459), (27, 28531), (28, 28543), (33, 28582), (43, 28633), (61, 28747),

Gene: OlympicHelado_29 Start: 25265, Stop: 25624, Start Num: 11
Candidate Starts for OlympicHelado_29:
(Start: 11 @25265 has 38 MA's), (26, 25361), (39, 25451), (52, 25538), (63, 25592),

Gene: Paella_47 Start: 37245, Stop: 37637, Start Num: 12
Candidate Starts for Paella_47:
(Start: 12 @37245 has 2 MA's), (24, 37323), (37, 37428), (54, 37515), (61, 37557),

Gene: Phaby_34 Start: 28643, Stop: 29047, Start Num: 8
Candidate Starts for Phaby_34:

(Start: 8 @28643 has 39 MA's), (33, 28808), (38, 28835), (43, 28859), (54, 28931),

Gene: PherryCruz_24 Start: 22357, Stop: 22692, Start Num: 19

Candidate Starts for PherryCruz_24:

(Start: 11 @22303 has 38 MA's), (Start: 19 @22357 has 2 MA's), (25, 22384), (26, 22396), (59, 22618), (64, 22636),

Gene: Popy_29 Start: 25776, Stop: 26141, Start Num: 11

Candidate Starts for Popy_29:

(Start: 11 @25776 has 38 MA's), (26, 25872), (39, 25962), (52, 26049),

Gene: Powelldog_32 Start: 25284, Stop: 25676, Start Num: 8

Candidate Starts for Powelldog_32:

(Start: 8 @25284 has 39 MA's), (26, 25389), (31, 25428), (40, 25485), (42, 25491), (46, 25524), (53, 25557), (68, 25629),

Gene: ProfFrink_30 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for ProfFrink_30:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Qui_47 Start: 37245, Stop: 37637, Start Num: 12

Candidate Starts for Qui_47:

(Start: 12 @37245 has 2 MA's), (24, 37323), (37, 37428), (54, 37515), (61, 37557),

Gene: Rainydai_27 Start: 24223, Stop: 24540, Start Num: 20

Candidate Starts for Rainydai_27:

(Start: 11 @24163 has 38 MA's), (15, 24181), (Start: 20 @24223 has 1 MA's), (25, 24247), (34, 24319), (40, 24355), (52, 24436),

Gene: Raunak_31 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for Raunak_31:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: RavenPuff_24 Start: 22303, Stop: 22692, Start Num: 11

Candidate Starts for RavenPuff_24:

(Start: 11 @22303 has 38 MA's), (Start: 19 @22357 has 2 MA's), (25, 22384), (26, 22396), (59, 22618), (64, 22636),

Gene: Regigigas_28 Start: 24163, Stop: 24540, Start Num: 11

Candidate Starts for Regigigas_28:

(Start: 11 @24163 has 38 MA's), (15, 24181), (Start: 20 @24223 has 1 MA's), (25, 24247), (34, 24319), (40, 24355), (52, 24436),

Gene: Rima_29 Start: 25265, Stop: 25624, Start Num: 11

Candidate Starts for Rima_29:

(Start: 11 @25265 has 38 MA's), (26, 25361), (39, 25451), (52, 25538), (63, 25592),

Gene: RosaAsantewaa_25 Start: 22174, Stop: 22560, Start Num: 11

Candidate Starts for RosaAsantewaa_25:

(3, 22111), (4, 22126), (Start: 11 @22174 has 38 MA's), (18, 22210), (40, 22363), (50, 22429), (53, 22447), (67, 22519),

Gene: RustyBoy_29 Start: 25006, Stop: 25392, Start Num: 8

Candidate Starts for RustyBoy_29:

(Start: 8 @25006 has 39 MA's), (32, 25159), (33, 25168), (36, 25189), (38, 25195), (42, 25213), (65, 25339),

Gene: Salk_30 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for Salk_30:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Scap1_25 Start: 22251, Stop: 22640, Start Num: 11

Candidate Starts for Scap1_25:

(9, 22242), (Start: 11 @22251 has 38 MA's), (25, 22332), (31, 22383), (33, 22401), (59, 22566), (64, 22584), (67, 22596),

Gene: ScienceWizSam_35 Start: 28830, Stop: 29222, Start Num: 8

Candidate Starts for ScienceWizSam_35:

(Start: 8 @28830 has 39 MA's), (16, 28860), (27, 28932), (28, 28944), (33, 28983), (43, 29034), (61, 29148),

Gene: SendItCS_26 Start: 24163, Stop: 24540, Start Num: 11

Candidate Starts for SendItCS_26:

(Start: 11 @24163 has 38 MA's), (15, 24181), (Start: 20 @24223 has 1 MA's), (25, 24247), (34, 24319), (40, 24355), (52, 24436), (69, 24526),

Gene: SheRa_25 Start: 22302, Stop: 22691, Start Num: 11

Candidate Starts for SheRa_25:

(Start: 11 @22302 has 38 MA's), (Start: 19 @22356 has 2 MA's), (26, 22395), (59, 22617), (64, 22635),

Gene: Shepard_34 Start: 28685, Stop: 29089, Start Num: 7

Candidate Starts for Shepard_34:

(Start: 7 @28685 has 2 MA's), (33, 28850), (43, 28901), (54, 28973),

Gene: Shiba_30 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for Shiba_30:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Sloopyjoe_30 Start: 25583, Stop: 25972, Start Num: 8

Candidate Starts for Sloopyjoe_30:

(Start: 8 @25583 has 39 MA's), (27, 25694), (33, 25745), (61, 25901),

Gene: Soshi_29 Start: 25782, Stop: 26147, Start Num: 11

Candidate Starts for Soshi_29:

(Start: 11 @25782 has 38 MA's), (26, 25878), (39, 25968), (52, 26055),

Gene: Spectropatronm_29 Start: 25259, Stop: 25618, Start Num: 11

Candidate Starts for Spectropatronm_29:

(Start: 11 @25259 has 38 MA's), (26, 25355), (39, 25445), (52, 25532), (63, 25586),

Gene: Sporto_31 Start: 26752, Stop: 27138, Start Num: 8

Candidate Starts for Sporto_31:

(Start: 8 @26752 has 39 MA's), (33, 26914), (36, 26935), (47, 26995), (48, 26998), (61, 27070),

Gene: StarLord_30 Start: 25583, Stop: 25972, Start Num: 8

Candidate Starts for StarLord_30:

(Start: 8 @25583 has 39 MA's), (27, 25694), (33, 25745), (61, 25901),

Gene: Stayer_30 Start: 25582, Stop: 25971, Start Num: 8

Candidate Starts for Stayer_30:

(Start: 8 @25582 has 39 MA's), (27, 25693), (33, 25744), (61, 25900),

Gene: Sunny4976_30 Start: 26962, Stop: 27348, Start Num: 8

Candidate Starts for Sunny4976_30:

(Start: 8 @26962 has 39 MA's), (Start: 20 @27022 has 1 MA's), (46, 27193), (68, 27301),

Gene: Synopsis_32 Start: 28493, Stop: 28885, Start Num: 8

Candidate Starts for Synopsis_32:

(Start: 8 @28493 has 39 MA's), (16, 28523), (28, 28607), (33, 28646), (43, 28697), (61, 28811),

Gene: TaidaOne_29 Start: 25907, Stop: 26266, Start Num: 11

Candidate Starts for TaidaOne_29:

(Start: 11 @25907 has 38 MA's), (26, 26003), (39, 26093), (52, 26180), (63, 26234),

Gene: Tatanka_33 Start: 28977, Stop: 29369, Start Num: 8

Candidate Starts for Tatanka_33:

(Start: 8 @28977 has 39 MA's), (16, 29007), (27, 29079), (28, 29091), (33, 29130), (43, 29181), (61, 29295),

Gene: Teacup_33 Start: 28347, Stop: 28739, Start Num: 8

Candidate Starts for Teacup_33:

(Start: 8 @28347 has 39 MA's), (16, 28377), (27, 28449), (28, 28461), (33, 28500), (43, 28551), (61, 28665),

Gene: Tenno_34 Start: 29574, Stop: 29963, Start Num: 8

Candidate Starts for Tenno_34:

(Start: 8 @29574 has 39 MA's), (16, 29604), (29, 29691), (35, 29739), (38, 29754), (49, 29817), (61, 29889),

Gene: Thiqqums_27 Start: 24163, Stop: 24540, Start Num: 11

Candidate Starts for Thiqqums_27:

(Start: 11 @24163 has 38 MA's), (15, 24181), (Start: 20 @24223 has 1 MA's), (25, 24247), (34, 24319), (40, 24355), (52, 24436),

Gene: TieDye_28 Start: 24951, Stop: 25310, Start Num: 11

Candidate Starts for TieDye_28:

(Start: 11 @24951 has 38 MA's), (26, 25047), (39, 25137), (52, 25224), (63, 25278),

Gene: Tokki_34 Start: 28659, Stop: 29063, Start Num: 8

Candidate Starts for Tokki_34:

(Start: 8 @28659 has 39 MA's), (18, 28710), (43, 28875), (54, 28947),

Gene: TonyStarch_29 Start: 25265, Stop: 25624, Start Num: 11

Candidate Starts for TonyStarch_29:

(Start: 11 @25265 has 38 MA's), (26, 25361), (39, 25451), (52, 25538), (63, 25592),

Gene: Tribby_27 Start: 24551, Stop: 24967, Start Num: 6

Candidate Starts for Tribby_27:

(Start: 6 @24551 has 17 MA's), (21, 24629), (30, 24692), (36, 24740), (61, 24896),

Gene: Truckee_32 Start: 28509, Stop: 28919, Start Num: 8

Candidate Starts for Truckee_32:

(Start: 8 @28509 has 39 MA's), (27, 28623), (33, 28674), (36, 28695), (38, 28701), (43, 28725), (54, 28803),

Gene: Trustiboi_34 Start: 29046, Stop: 29438, Start Num: 8

Candidate Starts for Trustiboi_34:

(Start: 8 @29046 has 39 MA's), (16, 29076), (27, 29148), (28, 29160), (33, 29199), (43, 29250), (61, 29364),

Gene: Zippen_34 Start: 28824, Stop: 29237, Start Num: 8

Candidate Starts for Zippen_34:

(Start: 8 @28824 has 39 MA's), (18, 28875), (32, 28980), (35, 29001), (38, 29016), (61, 29163),