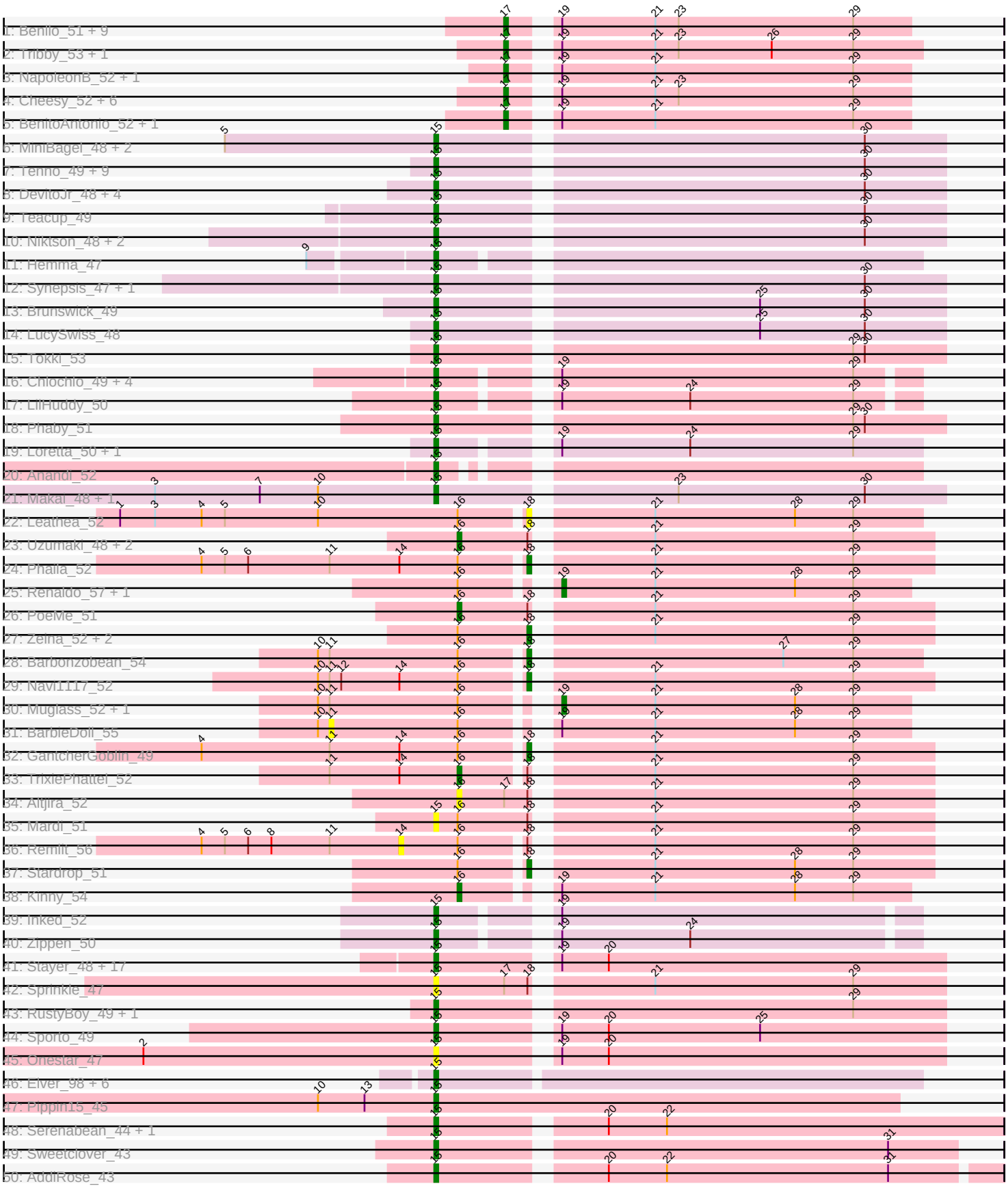
# Pham 341932


1: Benilo_51 + 9
2: Tribby_53 + 1
3: NapoleonB_52 + 1
4: Cheesy_52 + 6
5: BenitoAntonio_52 + 1
6: MiniBagel_48 + 2
7: Tenno_49 + 9
8: DevitoJr_48 + 4
9: Teacup_49
10: Niktson_48 + 2
11: Hemma_47
12: Synepsis_47 + 1
13: Brunswick_49
14: LucySwiss_48
15: Tokki_53
16: Chiochio_49 + 4
17: LilHuddy_50
18: Phaby_51
19: Loretta_50 + 1
20: Anandi_52
21: Makai_48 + 1
22: Leathea_52
23: Ozumaki_48 + 2
24: Phalla_52
25: Renaldo_57 + 1
26: PoeMe_51
27: Zelna_52 + 2
28: Barbonzobean_54
29: Navi1117_52
30: Muglass_52 + 1
31: BarbieDoll_55
32: GantcherGoblin_49
33: TrixiePhattel_52
34: Aitjira_52
35: Mardi_51
36: Remilt_56
37: Stardrop_51
38: Kinny_54
39: Inked_52
40: Zippen_50
41: Stayer_48 + 17
42: Sprinkle_47
43: RustyBoy_49 + 1
44: Sporto_49
45: Onestar_47
46: Elver_98 + 6
47: Pippin15_45
48: Serenabean_44 + 1
49: Sweetclover_43
50: AddiRose_43

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 341932 Report

This analysis was run 11/14/26 on database version 672.

Pham number 341932 has 123 members, 20 are drafts.

Phages represented in each track:
• Track 1 : Benllo_51, JEGGS_51, Stardom_49, GoCrazy_51, Hankly_51, Heisenberger_51, Mudcat_49, KeaneyLin_51, Circum_54, Mooshroom_54
• Track 2 : Tribby_53, Xenomorph_49
• Track 3 : NapoleonB_52, Dynamite_52
• Track 4 : Cheesy_52, YoshiYama_52, Elsa_52, Arcadia_52, Correa_50, Bowling_52, Nason_52
• Track 5 : BenitoAntonio_52, Kardesai_53
• Track 6 : MiniBagel_48, CapnMurica_46, Dinallo_48
• Track 7 : Tenno_49, Darby_47, Trustiboi_48, Acai_48, Westerlin_47, Gordon_46, Caterpillar_45, Issa_47, Breylor17_48, CastorTray_51
• Track 8 : DevitoJr_48, Nivinsha_50, Tatanka_46, ScienceWizSam_49, AreFloNak_51
• Track 9 : Teacup_49
• Track 10 : Niktson_48, ElephantMan_48, Nightmare_50
• Track 11 : Hemma_47
• Track 12 : Synepsis_47, MediumFry_46
• Track 13 : Brunswick_49
• Track 14 : LucySwiss_48
• Track 15 : Tokki_53
• Track 16 : Chlochlo_49, Bouchard_48, Shepard_51, Tipton_51, Giantsbane_49
• Track 17 : LilHuddy_50
• Track 18 : Phaby_51
• Track 19 : Loretta_50, Ingrid_50
• Track 20 : Anandi_52
• Track 21 : Makai_48, Truckee_46
• Track 22 : Leathea_52
• Track 23 : Uzumaki_48, BlackHoleSun_52, Tenney120_52
• Track 24 : Phaila_52
• Track 25 : Renaldo_57, Lewando_54
• Track 26 : PoeMe_51
• Track 27 : Zeina_52, Argan_49, KevinMinion_50
• Track 28 : Barbonzobean_54
• Track 29 : Navi1117_52
• Track 30 : Muglass_52, Biscute_51
• Track 31 : BarbieDoll_55
• Track 32 : GantcherGoblin_49
• Track 33 : TrixiePhattel_52

• Track 34 : Altjira_52
• Track 35 : Mardi_51
• Track 36 : Remlit_56
• Track 37 : Stardrop_51
• Track 38 : Kinny_54
• Track 39 : Inked_52
• Track 40 : Zippen_50
• Track 41 : Stayer_48, ProfFrink_48, Sloopyjoe_48, Linda_48, Michelle_48, Djungelskog_48, Egad_48, Raunak_48, Boog_47, BronxBay_48, Salk_48, Jeremy4pt0_47, StarLord_48, HerbBucket_49, Spain_51, Shiba_47, MrAaronian_48, DoctorPepper_47
• Track 42 : Sprinkle_47
• Track 43 : RustyBoy_49, Natasha_49
• Track 44 : Sporto_49
• Track 45 : Onestar_47
• Track 46 : Elver_98, JeNeSaisPas_95, Gandionco_95, Kureo_97, Paella_99, Qui_99, Marianna39_96
• Track 47 : Pippin15_45
• Track 48 : Serenabean_44, Daddyjeff_44
• Track 49 : Sweetclover_43
• Track 50 : AddiRose_43

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

The start number called the most often in the published annotations is 15, it was called in 66 of the 103 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acai_48, AddiRose_43, Anandi_52, AreFloNak_51, Boog_47, Bouchard_48, Breylor17_48, BronxBay_48, Brunswick_49, CapnMurica_46, CastorTray_51, Caterpillar_45, Chlochlo_49, Daddyjeff_44, Darby_47, DevitoJr_48, Dinallo_48, Djungelskog_48, DoctorPepper_47, Egad_48, ElephantMan_48, Elver_98, Gandionco_95, Giantsbane_49, Gordon_46, Hemma_47, HerbBucket_49, Ingrid_50, Inked_52, Issa_47, JeNeSaisPas_95, Jeremy4pt0_47, Kureo_97, LilHuddy_50, Linda_48, Loretta_50, LucySwiss_48, Makai_48, Mardi_51, Marianna39_96, MediumFry_46, Michelle_48, MiniBagel_48, MrAaronian_48, Natasha_49, Nightmare_50, Niktson_48, Nivinsha_50, Onestar_47, Paella_99, Phaby_51, Pippin15_45, ProfFrink_48, Qui_99, Raunak_48, RustyBoy_49, Salk_48, ScienceWizSam_49, Serenabean_44, Shepard_51, Shiba_47, Sloopyjoe_48, Spain_51, Sporto_49, Sprinkle_47, StarLord_48, Stayer_48, Sweetclover_43, Synepsis_47, Tatanka_46, Teacup_49, Tenno_49, Tipton_51, Tokki_53, Truckee_46, Trustiboi_48, Westerlin_47, Zippen_50,

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

Genes that do not have the "Most Annotated" start:
• Altjira_52, Arcadia_52, Argan_49, BarbieDoll_55, Barbonzobean_54, BenitoAntonio_52, Benllo_51, Biscute_51, BlackHoleSun_52, Bowling_52, Cheesy_52, Circum_54, Correa_50, Dynamite_52, Elsa_52, GantcherGoblin_49,

GoCrazy_51, Hankly_51, Heisenberger_51, JEGGS_51, Kardesai_53, KeaneyLin_51, KevinMinion_50, Kinny_54, Leathea_52, Lewando_54, Mooshroom_54, Mudcat_49, Muglass_52, NapoleonB_52, Nason_52, Navi1117_52, Phaila_52, PoeMe_51, Remlit_56, Renaldo_57, Stardom_49, Stardrop_51, Tenney120_52, Tribby_53, TrixiePhattel_52, Uzumaki_48, Xenomorph_49, YoshiYama_52, Zeina_52,

**Summary by start number:**

Start 11:
• Found in 9 of 123 ( 7.3% ) of genes in pham
• No Manual Annotations of this start.
• Called 11.1% of time when present
• Phage (with cluster) where this start called: BarbieDoll_55 (AU6),

Start 14:
• Found in 5 of 123 ( 4.1% ) of genes in pham
• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Remlit_56 (AU6),

Start 15:
• Found in 78 of 123 ( 63.4% ) of genes in pham
• Manual Annotations of this start: 66 of 103
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acai_48 (AU1), AddiRose_43 (JA), Anandi_52 (AU4), AreFloNak_51 (AU1), Boog_47 (AW), Bouchard_48 (AU2), Breylor17_48 (AU1), BronxBay_48 (AW), Brunswick_49 (AU1), CapnMurica_46 (AU1), CastorTray_51 (AU1), Caterpillar_45 (AU4), Chlochlo_49 (AU2), Daddyjeff_44 (JA), Darby_47 (AU1), DevitoJr_48 (AU1), Dinallo_48 (AU1), Djungelskog_48 (AW), DoctorPepper_47 (AW), Egad_48 (AW), ElephantMan_48 (AU1), Elver_98 (FK), Gandionco_95 (FK), Giantsbane_49 (AU2), Gordon_46 (AU1), Hemma_47 (AU1), HerbBucket_49 (AW), Ingrid_50 (AU3), Inked_52 (AU7), Issa_47 (AU1), JeNeSaisPas_95 (FK), Jeremy4pt0_47 (AW), Kureo_97 (FK), LilHuddy_50 (AU2), Linda_48 (AW), Loretta_50 (AU3), LucySwiss_48 (AU1), Makai_48 (AU5), Mardi_51 (AU6), Marianna39_96 (FK), MediumFry_46 (AU4), Michelle_48 (AW), MiniBagel_48 (AU1), MrAaronian_48 (AW), Natasha_49 (AW), Nightmare_50 (AU1), Niktson_48 (AU1), Nivinsha_50 (AU1), Onestar_47 (AW), Paella_99 (FK), Phaby_51 (AU2), Pippin15_45 (JA), ProfFrink_48 (AW), Qui_99 (FK), Raunak_48 (AW), RustyBoy_49 (AW), Salk_48 (AW), ScienceWizSam_49 (AU1), Serenabean_44 (JA), Shepard_51 (AU2), Shiba_47 (AW), Sloopyjoe_48 (AW), Spain_51 (AW), Sporto_49 (AW), Sprinkle_47 (AW), StarLord_48 (AW), Stayer_48 (AW), Sweetclover_43 (JA), Synepsis_47 (AU1), Tatanka_46 (AU1), Teacup_49 (AU1), Tenno_49 (AU1), Tipton_51 (AU2), Tokki_53 (AU2), Truckee_46 (AU5), Trustiboi_48 (AU1), Westerlin_47 (AU1), Zippen_50 (AU7),

Start 16:
• Found in 23 of 123 ( 18.7% ) of genes in pham
• Manual Annotations of this start: 5 of 103
• Called 30.4% of time when present
• Phage (with cluster) where this start called: Altjira_52 (AU6), BlackHoleSun_52 (AU6), Kinny_54 (AU6), PoeMe_51 (AU6), Tenney120_52 (AU6), TrixiePhattel_52 (AU6), Uzumaki_48 (AU6),

Start 17:
• Found in 25 of 123 ( 20.3% ) of genes in pham
• Manual Annotations of this start: 21 of 103
• Called 92.0% of time when present
• Phage (with cluster) where this start called: Arcadia_52 (AM), BenitoAntonio_52 (AM), Benllo_51 (AM), Bowling_52 (AM), Cheesy_52 (AM), Circum_54 (AM), Correa_50 (AM), Dynamite_52 (AM), Elsa_52 (AM), GoCrazy_51 (AM), Hankly_51 (AM), Heisenberger_51 (AM), JEGGS_51 (AM), Kardesai_53 (AM), KeaneyLin_51 (AM), Mooshroom_54 (AM), Mudcat_49 (AM), NapoleonB_52 (AM), Nason_52 (AM), Stardom_49 (AM), Tribby_53 (AM), Xenomorph_49 (AM), YoshiYama_52 (AM),

Start 18:
• Found in 18 of 123 ( 14.6% ) of genes in pham
• Manual Annotations of this start: 8 of 103
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Argan_49 (AU6), Barbonzobean_54 (AU6), GantcherGoblin_49 (AU6), KevinMinion_50 (AU6), Leathea_52 (AU6), Navi1117_52 (AU6), Phaila_52 (AU6), Stardrop_51 (AU6), Zeina_52 (AU6),

Start 19:
• Found in 59 of 123 ( 48.0% ) of genes in pham
• Manual Annotations of this start: 3 of 103
• Called 6.8% of time when present
• Phage (with cluster) where this start called: Biscute_51 (AU6), Lewando_54 (AU6), Muglass_52 (AU6), Renaldo_57 (AU6),

**Summary by clusters:**

There are 11 clusters represented in this pham: AU7, AM, AU1, AU3, AU2, AU5, AU4, AW, AU6, FK, JA,

Info for manual annotations of cluster AM:
•Start number 17 was manually annotated 21 times for cluster AM.

Info for manual annotations of cluster AU1:
•Start number 15 was manually annotated 21 times for cluster AU1.

Info for manual annotations of cluster AU2:
•Start number 15 was manually annotated 8 times for cluster AU2.

Info for manual annotations of cluster AU3:
•Start number 15 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:
•Start number 15 was manually annotated 3 times for cluster AU4.

Info for manual annotations of cluster AU5:
•Start number 15 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:
•Start number 16 was manually annotated 5 times for cluster AU6.
•Start number 18 was manually annotated 8 times for cluster AU6.

•Start number 19 was manually annotated 3 times for cluster AU6.

Info for manual annotations of cluster AU7:
•Start number 15 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:
•Start number 15 was manually annotated 19 times for cluster AW.

Info for manual annotations of cluster FK:
•Start number 15 was manually annotated 4 times for cluster FK.

Info for manual annotations of cluster JA:
•Start number 15 was manually annotated 5 times for cluster JA.

### *Gene Information:*

Gene: Acai_48 Start: 34862, Stop: 34987, Start Num: 15
Candidate Starts for Acai_48:
(Start: 15 @34862 has 66 MA's), (30, 34967),

Gene: AddiRose_43 Start: 31154, Stop: 31291, Start Num: 15
Candidate Starts for AddiRose_43:
(Start: 15 @31154 has 66 MA's), (20, 31193), (22, 31208), (31, 31265),

Gene: Altjira_52 Start: 34529, Stop: 34645, Start Num: 16
Candidate Starts for Altjira_52:
(Start: 16 @34529 has 5 MA's), (Start: 17 @34541 has 21 MA's), (Start: 18 @34547 has 8 MA's), (21, 34574), (29, 34625),

Gene: Anandi_52 Start: 35089, Stop: 35202, Start Num: 15
Candidate Starts for Anandi_52:
(Start: 15 @35089 has 66 MA's),

Gene: Arcadia_52 Start: 33235, Stop: 33333, Start Num: 17
Candidate Starts for Arcadia_52:
(Start: 17 @33235 has 21 MA's), (Start: 19 @33244 has 3 MA's), (21, 33268), (23, 33274), (29, 33319),

Gene: AreFloNak_51 Start: 34832, Stop: 34957, Start Num: 15
Candidate Starts for AreFloNak_51:
(Start: 15 @34832 has 66 MA's), (30, 34937),

Gene: Argan_49 Start: 33254, Stop: 33352, Start Num: 18
Candidate Starts for Argan_49:
(Start: 16 @33236 has 5 MA's), (Start: 18 @33254 has 8 MA's), (21, 33281), (29, 33332),

Gene: BarbieDoll_55 Start: 34950, Stop: 35090, Start Num: 11
Candidate Starts for BarbieDoll_55:
(10, 34947), (11, 34950), (Start: 16 @34983 has 5 MA's), (Start: 19 @35001 has 3 MA's), (21, 35025), (28, 35061), (29, 35076),

Gene: Barbonzobean_54 Start: 35258, Stop: 35353, Start Num: 18

Candidate Starts for Barbonzobean_54:
(10, 35207), (11, 35210), (Start: 16 @35243 has 5 MA's), (Start: 18 @35258 has 8 MA's), (27, 35318), (29, 35336),

Gene: BenitoAntonio_52 Start: 32772, Stop: 32870, Start Num: 17
Candidate Starts for BenitoAntonio_52:
(Start: 17 @32772 has 21 MA's), (Start: 19 @32781 has 3 MA's), (21, 32805), (29, 32856),

Gene: Benllo_51 Start: 33450, Stop: 33548, Start Num: 17
Candidate Starts for Benllo_51:
(Start: 17 @33450 has 21 MA's), (Start: 19 @33459 has 3 MA's), (21, 33483), (23, 33489), (29, 33534),

Gene: Biscute_51 Start: 34653, Stop: 34742, Start Num: 19
Candidate Starts for Biscute_51:
(10, 34599), (11, 34602), (Start: 16 @34635 has 5 MA's), (Start: 19 @34653 has 3 MA's), (21, 34677), (28, 34713), (29, 34728),

Gene: BlackHoleSun_52 Start: 33361, Stop: 33477, Start Num: 16
Candidate Starts for BlackHoleSun_52:
(Start: 16 @33361 has 5 MA's), (Start: 18 @33379 has 8 MA's), (21, 33406), (29, 33457),

Gene: Boog_47 Start: 32283, Stop: 32408, Start Num: 15
Candidate Starts for Boog_47:
(Start: 15 @32283 has 66 MA's), (Start: 19 @32310 has 3 MA's), (20, 32322),

Gene: Bouchard_48 Start: 34781, Stop: 34894, Start Num: 15
Candidate Starts for Bouchard_48:
(Start: 15 @34781 has 66 MA's), (Start: 19 @34805 has 3 MA's), (29, 34880),

Gene: Bowling_52 Start: 32980, Stop: 33078, Start Num: 17
Candidate Starts for Bowling_52:
(Start: 17 @32980 has 21 MA's), (Start: 19 @32989 has 3 MA's), (21, 33013), (23, 33019), (29, 33064),

Gene: Breylor17_48 Start: 35423, Stop: 35548, Start Num: 15
Candidate Starts for Breylor17_48:
(Start: 15 @35423 has 66 MA's), (30, 35528),

Gene: BronxBay_48 Start: 32581, Stop: 32706, Start Num: 15
Candidate Starts for BronxBay_48:
(Start: 15 @32581 has 66 MA's), (Start: 19 @32608 has 3 MA's), (20, 32620),

Gene: Brunswick_49 Start: 34716, Stop: 34841, Start Num: 15
Candidate Starts for Brunswick_49:
(Start: 15 @34716 has 66 MA's), (25, 34794), (30, 34821),

Gene: CapnMurica_46 Start: 35616, Stop: 35741, Start Num: 15
Candidate Starts for CapnMurica_46:
(5, 35562), (Start: 15 @35616 has 66 MA's), (30, 35721),

Gene: CastorTray_51 Start: 35487, Stop: 35612, Start Num: 15
Candidate Starts for CastorTray_51:
(Start: 15 @35487 has 66 MA's), (30, 35592),

Gene: Caterpillar_45 Start: 33882, Stop: 34007, Start Num: 15
Candidate Starts for Caterpillar_45:
(Start: 15 @33882 has 66 MA's), (30, 33987),

Gene: Cheesy_52 Start: 32956, Stop: 33054, Start Num: 17
Candidate Starts for Cheesy_52:
(Start: 17 @32956 has 21 MA's), (Start: 19 @32965 has 3 MA's), (21, 32989), (23, 32995), (29, 33040),

Gene: Chlochlo_49 Start: 34525, Stop: 34638, Start Num: 15
Candidate Starts for Chlochlo_49:
(Start: 15 @34525 has 66 MA's), (Start: 19 @34549 has 3 MA's), (29, 34624),

Gene: Circum_54 Start: 33641, Stop: 33739, Start Num: 17
Candidate Starts for Circum_54:
(Start: 17 @33641 has 21 MA's), (Start: 19 @33650 has 3 MA's), (21, 33674), (23, 33680), (29, 33725),

Gene: Correa_50 Start: 32102, Stop: 32200, Start Num: 17
Candidate Starts for Correa_50:
(Start: 17 @32102 has 21 MA's), (Start: 19 @32111 has 3 MA's), (21, 32135), (23, 32141), (29, 32186),

Gene: Daddyjeff_44 Start: 31430, Stop: 31570, Start Num: 15
Candidate Starts for Daddyjeff_44:
(Start: 15 @31430 has 66 MA's), (20, 31469), (22, 31484),

Gene: Darby_47 Start: 34661, Stop: 34786, Start Num: 15
Candidate Starts for Darby_47:
(Start: 15 @34661 has 66 MA's), (30, 34766),

Gene: DevitoJr_48 Start: 35053, Stop: 35178, Start Num: 15
Candidate Starts for DevitoJr_48:
(Start: 15 @35053 has 66 MA's), (30, 35158),

Gene: Dinallo_48 Start: 35925, Stop: 36050, Start Num: 15
Candidate Starts for Dinallo_48:
(5, 35871), (Start: 15 @35925 has 66 MA's), (30, 36030),

Gene: Djungelskog_48 Start: 32580, Stop: 32705, Start Num: 15
Candidate Starts for Djungelskog_48:
(Start: 15 @32580 has 66 MA's), (Start: 19 @32607 has 3 MA's), (20, 32619),

Gene: DoctorPepper_47 Start: 32285, Stop: 32410, Start Num: 15
Candidate Starts for DoctorPepper_47:
(Start: 15 @32285 has 66 MA's), (Start: 19 @32312 has 3 MA's), (20, 32324),

Gene: Dynamite_52 Start: 33165, Stop: 33263, Start Num: 17
Candidate Starts for Dynamite_52:
(Start: 17 @33165 has 21 MA's), (Start: 19 @33174 has 3 MA's), (21, 33198), (29, 33249),

Gene: Egad_48 Start: 32582, Stop: 32707, Start Num: 15
Candidate Starts for Egad_48:
(Start: 15 @32582 has 66 MA's), (Start: 19 @32609 has 3 MA's), (20, 32621),

Gene: ElephantMan_48 Start: 35339, Stop: 35464, Start Num: 15

Candidate Starts for ElephantMan_48:
(Start: 15 @35339 has 66 MA's), (30, 35444),

Gene: Elsa_52 Start: 33235, Stop: 33333, Start Num: 17
Candidate Starts for Elsa_52:
(Start: 17 @33235 has 21 MA's), (Start: 19 @33244 has 3 MA's), (21, 33268), (23, 33274), (29, 33319),

Gene: Elver_98 Start: 54542, Stop: 54664, Start Num: 15
Candidate Starts for Elver_98:
(Start: 15 @54542 has 66 MA's),

Gene: Gandionco_95 Start: 53398, Stop: 53520, Start Num: 15
Candidate Starts for Gandionco_95:
(Start: 15 @53398 has 66 MA's),

Gene: GantcherGoblin_49 Start: 33332, Stop: 33430, Start Num: 18
Candidate Starts for GantcherGoblin_49:
(4, 33251), (11, 33284), (14, 33302), (Start: 16 @33317 has 5 MA's), (Start: 18 @33332 has 8 MA's),
(21, 33359), (29, 33410),

Gene: Giantsbane_49 Start: 33708, Stop: 33821, Start Num: 15
Candidate Starts for Giantsbane_49:
(Start: 15 @33708 has 66 MA's), (Start: 19 @33732 has 3 MA's), (29, 33807),

Gene: GoCrazy_51 Start: 33106, Stop: 33204, Start Num: 17
Candidate Starts for GoCrazy_51:
(Start: 17 @33106 has 21 MA's), (Start: 19 @33115 has 3 MA's), (21, 33139), (23, 33145), (29, 33190),

Gene: Gordon_46 Start: 35478, Stop: 35603, Start Num: 15
Candidate Starts for Gordon_46:
(Start: 15 @35478 has 66 MA's), (30, 35583),

Gene: Hankly_51 Start: 32380, Stop: 32478, Start Num: 17
Candidate Starts for Hankly_51:
(Start: 17 @32380 has 21 MA's), (Start: 19 @32389 has 3 MA's), (21, 32413), (23, 32419), (29, 32464),

Gene: Heisenberger_51 Start: 32661, Stop: 32759, Start Num: 17
Candidate Starts for Heisenberger_51:
(Start: 17 @32661 has 21 MA's), (Start: 19 @32670 has 3 MA's), (21, 32694), (23, 32700), (29, 32745),

Gene: Hemma_47 Start: 31669, Stop: 31785, Start Num: 15
Candidate Starts for Hemma_47:
(9, 31639), (Start: 15 @31669 has 66 MA's),

Gene: HerbBucket_49 Start: 32280, Stop: 32405, Start Num: 15
Candidate Starts for HerbBucket_49:
(Start: 15 @32280 has 66 MA's), (Start: 19 @32307 has 3 MA's), (20, 32319),

Gene: Ingrid_50 Start: 34682, Stop: 34798, Start Num: 15
Candidate Starts for Ingrid_50:
(Start: 15 @34682 has 66 MA's), (Start: 19 @34706 has 3 MA's), (24, 34739), (29, 34781),

Gene: Inked_52 Start: 35810, Stop: 35923, Start Num: 15

Candidate Starts for Inked_52:
(Start: 15 @35810 has 66 MA's), (Start: 19 @35834 has 3 MA's),

Gene: Issa_47 Start: 34704, Stop: 34829, Start Num: 15
Candidate Starts for Issa_47:
(Start: 15 @34704 has 66 MA's), (30, 34809),

Gene: JEGGS_51 Start: 32716, Stop: 32814, Start Num: 17
Candidate Starts for JEGGS_51:
(Start: 17 @32716 has 21 MA's), (Start: 19 @32725 has 3 MA's), (21, 32749), (23, 32755), (29, 32800),

Gene: JeNeSaisPas_95 Start: 53972, Stop: 54094, Start Num: 15
Candidate Starts for JeNeSaisPas_95:
(Start: 15 @53972 has 66 MA's),

Gene: Jeremy4pt0_47 Start: 32280, Stop: 32405, Start Num: 15
Candidate Starts for Jeremy4pt0_47:
(Start: 15 @32280 has 66 MA's), (Start: 19 @32307 has 3 MA's), (20, 32319),

Gene: Kardesai_53 Start: 33350, Stop: 33448, Start Num: 17
Candidate Starts for Kardesai_53:
(Start: 17 @33350 has 21 MA's), (Start: 19 @33359 has 3 MA's), (21, 33383), (29, 33434),

Gene: KeaneyLin_51 Start: 33106, Stop: 33204, Start Num: 17
Candidate Starts for KeaneyLin_51:
(Start: 17 @33106 has 21 MA's), (Start: 19 @33115 has 3 MA's), (21, 33139), (23, 33145), (29, 33190),

Gene: KevinMinion_50 Start: 34205, Stop: 34303, Start Num: 18
Candidate Starts for KevinMinion_50:
(Start: 16 @34187 has 5 MA's), (Start: 18 @34205 has 8 MA's), (21, 34232), (29, 34283),

Gene: Kinny_54 Start: 35478, Stop: 35585, Start Num: 16
Candidate Starts for Kinny_54:
(Start: 16 @35478 has 5 MA's), (Start: 19 @35496 has 3 MA's), (21, 35520), (28, 35556), (29, 35571),

Gene: Kureo_97 Start: 53552, Stop: 53674, Start Num: 15
Candidate Starts for Kureo_97:
(Start: 15 @53552 has 66 MA's),

Gene: Leathea_52 Start: 33428, Stop: 33523, Start Num: 18
Candidate Starts for Leathea_52:
(1, 33326), (3, 33335), (4, 33347), (5, 33353), (10, 33377), (Start: 16 @33413 has 5 MA's), (Start: 18 @33428 has 8 MA's), (21, 33455), (28, 33491), (29, 33506),

Gene: Lewando_54 Start: 35003, Stop: 35092, Start Num: 19
Candidate Starts for Lewando_54:
(Start: 16 @34985 has 5 MA's), (Start: 19 @35003 has 3 MA's), (21, 35027), (28, 35063), (29, 35078),

Gene: LilHuddy_50 Start: 34898, Stop: 35011, Start Num: 15
Candidate Starts for LilHuddy_50:
(Start: 15 @34898 has 66 MA's), (Start: 19 @34922 has 3 MA's), (24, 34955), (29, 34997),

Gene: Linda_48 Start: 32578, Stop: 32703, Start Num: 15

Candidate Starts for Linda_48:
(Start: 15 @32578 has 66 MA's), (Start: 19 @32605 has 3 MA's), (20, 32617),

Gene: Loretta_50 Start: 34682, Stop: 34798, Start Num: 15
Candidate Starts for Loretta_50:
(Start: 15 @34682 has 66 MA's), (Start: 19 @34706 has 3 MA's), (24, 34739), (29, 34781),

Gene: LucySwiss_48 Start: 34506, Stop: 34631, Start Num: 15
Candidate Starts for LucySwiss_48:
(Start: 15 @34506 has 66 MA's), (25, 34584), (30, 34611),

Gene: Makai_48 Start: 34863, Stop: 34988, Start Num: 15
Candidate Starts for Makai_48:
(3, 34791), (7, 34818), (10, 34833), (Start: 15 @34863 has 66 MA's), (23, 34920), (30, 34968),

Gene: Mardi_51 Start: 33756, Stop: 33878, Start Num: 15
Candidate Starts for Mardi_51:
(Start: 15 @33756 has 66 MA's), (Start: 16 @33762 has 5 MA's), (Start: 18 @33780 has 8 MA's), (21, 33807), (29, 33858),

Gene: Marianna39_96 Start: 53967, Stop: 54089, Start Num: 15
Candidate Starts for Marianna39_96:
(Start: 15 @53967 has 66 MA's),

Gene: MediumFry_46 Start: 34186, Stop: 34311, Start Num: 15
Candidate Starts for MediumFry_46:
(Start: 15 @34186 has 66 MA's), (30, 34291),

Gene: Michelle_48 Start: 32580, Stop: 32705, Start Num: 15
Candidate Starts for Michelle_48:
(Start: 15 @32580 has 66 MA's), (Start: 19 @32607 has 3 MA's), (20, 32619),

Gene: MiniBagel_48 Start: 35598, Stop: 35723, Start Num: 15
Candidate Starts for MiniBagel_48:
(5, 35544), (Start: 15 @35598 has 66 MA's), (30, 35703),

Gene: Mooshroom_54 Start: 33350, Stop: 33448, Start Num: 17
Candidate Starts for Mooshroom_54:
(Start: 17 @33350 has 21 MA's), (Start: 19 @33359 has 3 MA's), (21, 33383), (23, 33389), (29, 33434),

Gene: MrAaronian_48 Start: 32580, Stop: 32705, Start Num: 15
Candidate Starts for MrAaronian_48:
(Start: 15 @32580 has 66 MA's), (Start: 19 @32607 has 3 MA's), (20, 32619),

Gene: Mudcat_49 Start: 34074, Stop: 34172, Start Num: 17
Candidate Starts for Mudcat_49:
(Start: 17 @34074 has 21 MA's), (Start: 19 @34083 has 3 MA's), (21, 34107), (23, 34113), (29, 34158),

Gene: Muglass_52 Start: 34557, Stop: 34646, Start Num: 19
Candidate Starts for Muglass_52:
(10, 34503), (11, 34506), (Start: 16 @34539 has 5 MA's), (Start: 19 @34557 has 3 MA's), (21, 34581), (28, 34617), (29, 34632),

Gene: NapoleonB_52 Start: 33165, Stop: 33263, Start Num: 17
Candidate Starts for NapoleonB_52:
(Start: 17 @33165 has 21 MA's), (Start: 19 @33174 has 3 MA's), (21, 33198), (29, 33249),

Gene: Nason_52 Start: 33235, Stop: 33333, Start Num: 17
Candidate Starts for Nason_52:
(Start: 17 @33235 has 21 MA's), (Start: 19 @33244 has 3 MA's), (21, 33268), (23, 33274), (29, 33319),

Gene: Natasha_49 Start: 32374, Stop: 32499, Start Num: 15
Candidate Starts for Natasha_49:
(Start: 15 @32374 has 66 MA's), (29, 32476),

Gene: Navi1117_52 Start: 34044, Stop: 34142, Start Num: 18
Candidate Starts for Navi1117_52:
(10, 33993), (11, 33996), (12, 33999), (14, 34014), (Start: 16 @34029 has 5 MA's), (Start: 18 @34044 has 8 MA's), (21, 34071), (29, 34122),

Gene: Nightmare_50 Start: 35895, Stop: 36020, Start Num: 15
Candidate Starts for Nightmare_50:
(Start: 15 @35895 has 66 MA's), (30, 36000),

Gene: Niktson_48 Start: 35339, Stop: 35464, Start Num: 15
Candidate Starts for Niktson_48:
(Start: 15 @35339 has 66 MA's), (30, 35444),

Gene: Nivinsha_50 Start: 34832, Stop: 34957, Start Num: 15
Candidate Starts for Nivinsha_50:
(Start: 15 @34832 has 66 MA's), (30, 34937),

Gene: Onestar_47 Start: 32126, Stop: 32251, Start Num: 15
Candidate Starts for Onestar_47:
(2, 32051), (Start: 15 @32126 has 66 MA's), (Start: 19 @32153 has 3 MA's), (20, 32165),

Gene: Paella_99 Start: 55132, Stop: 55254, Start Num: 15
Candidate Starts for Paella_99:
(Start: 15 @55132 has 66 MA's),

Gene: Phaby_51 Start: 35428, Stop: 35553, Start Num: 15
Candidate Starts for Phaby_51:
(Start: 15 @35428 has 66 MA's), (29, 35530), (30, 35533),

Gene: Phaila_52 Start: 33425, Stop: 33523, Start Num: 18
Candidate Starts for Phaila_52:
(4, 33344), (5, 33350), (6, 33356), (11, 33377), (14, 33395), (Start: 16 @33410 has 5 MA's), (Start: 18 @33425 has 8 MA's), (21, 33452), (29, 33503),

Gene: Pippin15_45 Start: 31372, Stop: 31491, Start Num: 15
Candidate Starts for Pippin15_45:
(10, 31342), (13, 31354), (Start: 15 @31372 has 66 MA's),

Gene: PoeMe_51 Start: 33929, Stop: 34045, Start Num: 16
Candidate Starts for PoeMe_51:
(Start: 16 @33929 has 5 MA's), (Start: 18 @33947 has 8 MA's), (21, 33974), (29, 34025),

Gene: ProfFrink_48 Start: 32581, Stop: 32706, Start Num: 15
Candidate Starts for ProfFrink_48:
(Start: 15 @32581 has 66 MA's), (Start: 19 @32608 has 3 MA's), (20, 32620),

Gene: Qui_99 Start: 55132, Stop: 55254, Start Num: 15
Candidate Starts for Qui_99:
(Start: 15 @55132 has 66 MA's),

Gene: Raunak_48 Start: 32278, Stop: 32403, Start Num: 15
Candidate Starts for Raunak_48:
(Start: 15 @32278 has 66 MA's), (Start: 19 @32305 has 3 MA's), (20, 32317),

Gene: Remlit_56 Start: 33955, Stop: 34083, Start Num: 14
Candidate Starts for Remlit_56:
(4, 33904), (5, 33910), (6, 33916), (8, 33922), (11, 33937), (14, 33955), (Start: 16 @33970 has 5 MA's), (Start: 18 @33985 has 8 MA's), (21, 34012), (29, 34063),

Gene: Renaldo_57 Start: 35312, Stop: 35401, Start Num: 19
Candidate Starts for Renaldo_57:
(Start: 16 @35294 has 5 MA's), (Start: 19 @35312 has 3 MA's), (21, 35336), (28, 35372), (29, 35387),

Gene: RustyBoy_49 Start: 32355, Stop: 32480, Start Num: 15
Candidate Starts for RustyBoy_49:
(Start: 15 @32355 has 66 MA's), (29, 32457),

Gene: Salk_48 Start: 32578, Stop: 32703, Start Num: 15
Candidate Starts for Salk_48:
(Start: 15 @32578 has 66 MA's), (Start: 19 @32605 has 3 MA's), (20, 32617),

Gene: ScienceWizSam_49 Start: 34940, Stop: 35065, Start Num: 15
Candidate Starts for ScienceWizSam_49:
(Start: 15 @34940 has 66 MA's), (30, 35045),

Gene: Serenabean_44 Start: 31433, Stop: 31573, Start Num: 15
Candidate Starts for Serenabean_44:
(Start: 15 @31433 has 66 MA's), (20, 31472), (22, 31487),

Gene: Shepard_51 Start: 34739, Stop: 34852, Start Num: 15
Candidate Starts for Shepard_51:
(Start: 15 @34739 has 66 MA's), (Start: 19 @34763 has 3 MA's), (29, 34838),

Gene: Shiba_47 Start: 32278, Stop: 32403, Start Num: 15
Candidate Starts for Shiba_47:
(Start: 15 @32278 has 66 MA's), (Start: 19 @32305 has 3 MA's), (20, 32317),

Gene: Sloopyjoe_48 Start: 32582, Stop: 32707, Start Num: 15
Candidate Starts for Sloopyjoe_48:
(Start: 15 @32582 has 66 MA's), (Start: 19 @32609 has 3 MA's), (20, 32621),

Gene: Spain_51 Start: 32580, Stop: 32705, Start Num: 15
Candidate Starts for Spain_51:
(Start: 15 @32580 has 66 MA's), (Start: 19 @32607 has 3 MA's), (20, 32619),

Gene: Sporto_49 Start: 34042, Stop: 34167, Start Num: 15
Candidate Starts for Sporto_49:
(Start: 15 @34042 has 66 MA's), (Start: 19 @34069 has 3 MA's), (20, 34081), (25, 34120),

Gene: Sprinkle_47 Start: 33056, Stop: 33181, Start Num: 15
Candidate Starts for Sprinkle_47:
(Start: 15 @33056 has 66 MA's), (Start: 17 @33074 has 21 MA's), (Start: 18 @33080 has 8 MA's), (21, 33107), (29, 33158),

Gene: StarLord_48 Start: 32581, Stop: 32706, Start Num: 15
Candidate Starts for StarLord_48:
(Start: 15 @32581 has 66 MA's), (Start: 19 @32608 has 3 MA's), (20, 32620),

Gene: Stardom_49 Start: 31842, Stop: 31940, Start Num: 17
Candidate Starts for Stardom_49:
(Start: 17 @31842 has 21 MA's), (Start: 19 @31851 has 3 MA's), (21, 31875), (23, 31881), (29, 31926),

Gene: Stardrop_51 Start: 34049, Stop: 34147, Start Num: 18
Candidate Starts for Stardrop_51:
(Start: 16 @34034 has 5 MA's), (Start: 18 @34049 has 8 MA's), (21, 34076), (28, 34112), (29, 34127),

Gene: Stayer_48 Start: 32578, Stop: 32703, Start Num: 15
Candidate Starts for Stayer_48:
(Start: 15 @32578 has 66 MA's), (Start: 19 @32605 has 3 MA's), (20, 32617),

Gene: Sweetclover_43 Start: 30218, Stop: 30346, Start Num: 15
Candidate Starts for Sweetclover_43:
(Start: 15 @30218 has 66 MA's), (31, 30329),

Gene: Synepsis_47 Start: 35008, Stop: 35133, Start Num: 15
Candidate Starts for Synepsis_47:
(Start: 15 @35008 has 66 MA's), (30, 35113),

Gene: Tatanka_46 Start: 35128, Stop: 35253, Start Num: 15
Candidate Starts for Tatanka_46:
(Start: 15 @35128 has 66 MA's), (30, 35233),

Gene: Teacup_49 Start: 35368, Stop: 35493, Start Num: 15
Candidate Starts for Teacup_49:
(Start: 15 @35368 has 66 MA's), (30, 35473),

Gene: Tenney120_52 Start: 33971, Stop: 34087, Start Num: 16
Candidate Starts for Tenney120_52:
(Start: 16 @33971 has 5 MA's), (Start: 18 @33989 has 8 MA's), (21, 34016), (29, 34067),

Gene: Tenno_49 Start: 35671, Stop: 35796, Start Num: 15
Candidate Starts for Tenno_49:
(Start: 15 @35671 has 66 MA's), (30, 35776),

Gene: Tipton_51 Start: 35184, Stop: 35297, Start Num: 15
Candidate Starts for Tipton_51:
(Start: 15 @35184 has 66 MA's), (Start: 19 @35208 has 3 MA's), (29, 35283),

Gene: Tokki_53 Start: 35062, Stop: 35187, Start Num: 15
Candidate Starts for Tokki_53:
(Start: 15 @35062 has 66 MA's), (29, 35164), (30, 35167),

Gene: Tribby_53 Start: 33173, Stop: 33274, Start Num: 17
Candidate Starts for Tribby_53:
(Start: 17 @33173 has 21 MA's), (Start: 19 @33182 has 3 MA's), (21, 33206), (23, 33212), (26, 33236), (29, 33257),

Gene: TrixiePhattel_52 Start: 33437, Stop: 33550, Start Num: 16
Candidate Starts for TrixiePhattel_52:
(11, 33404), (14, 33422), (Start: 16 @33437 has 5 MA's), (Start: 18 @33452 has 8 MA's), (21, 33479), (29, 33530),

Gene: Truckee_46 Start: 34653, Stop: 34778, Start Num: 15
Candidate Starts for Truckee_46:
(3, 34581), (7, 34608), (10, 34623), (Start: 15 @34653 has 66 MA's), (23, 34710), (30, 34758),

Gene: Trustiboi_48 Start: 35209, Stop: 35334, Start Num: 15
Candidate Starts for Trustiboi_48:
(Start: 15 @35209 has 66 MA's), (30, 35314),

Gene: Uzumaki_48 Start: 33429, Stop: 33545, Start Num: 16
Candidate Starts for Uzumaki_48:
(Start: 16 @33429 has 5 MA's), (Start: 18 @33447 has 8 MA's), (21, 33474), (29, 33525),

Gene: Westerlin_47 Start: 36222, Stop: 36347, Start Num: 15
Candidate Starts for Westerlin_47:
(Start: 15 @36222 has 66 MA's), (30, 36327),

Gene: Xenomorph_49 Start: 32906, Stop: 33004, Start Num: 17
Candidate Starts for Xenomorph_49:
(Start: 17 @32906 has 21 MA's), (Start: 19 @32915 has 3 MA's), (21, 32939), (23, 32945), (26, 32969), (29, 32990),

Gene: YoshiYama_52 Start: 33230, Stop: 33328, Start Num: 17
Candidate Starts for YoshiYama_52:
(Start: 17 @33230 has 21 MA's), (Start: 19 @33239 has 3 MA's), (21, 33263), (23, 33269), (29, 33314),

Gene: Zeina_52 Start: 33997, Stop: 34095, Start Num: 18
Candidate Starts for Zeina_52:
(Start: 16 @33979 has 5 MA's), (Start: 18 @33997 has 8 MA's), (21, 34024), (29, 34075),

Gene: Zippen_50 Start: 35509, Stop: 35622, Start Num: 15
Candidate Starts for Zippen_50:
(Start: 15 @35509 has 66 MA's), (Start: 19 @35533 has 3 MA's), (24, 35566),