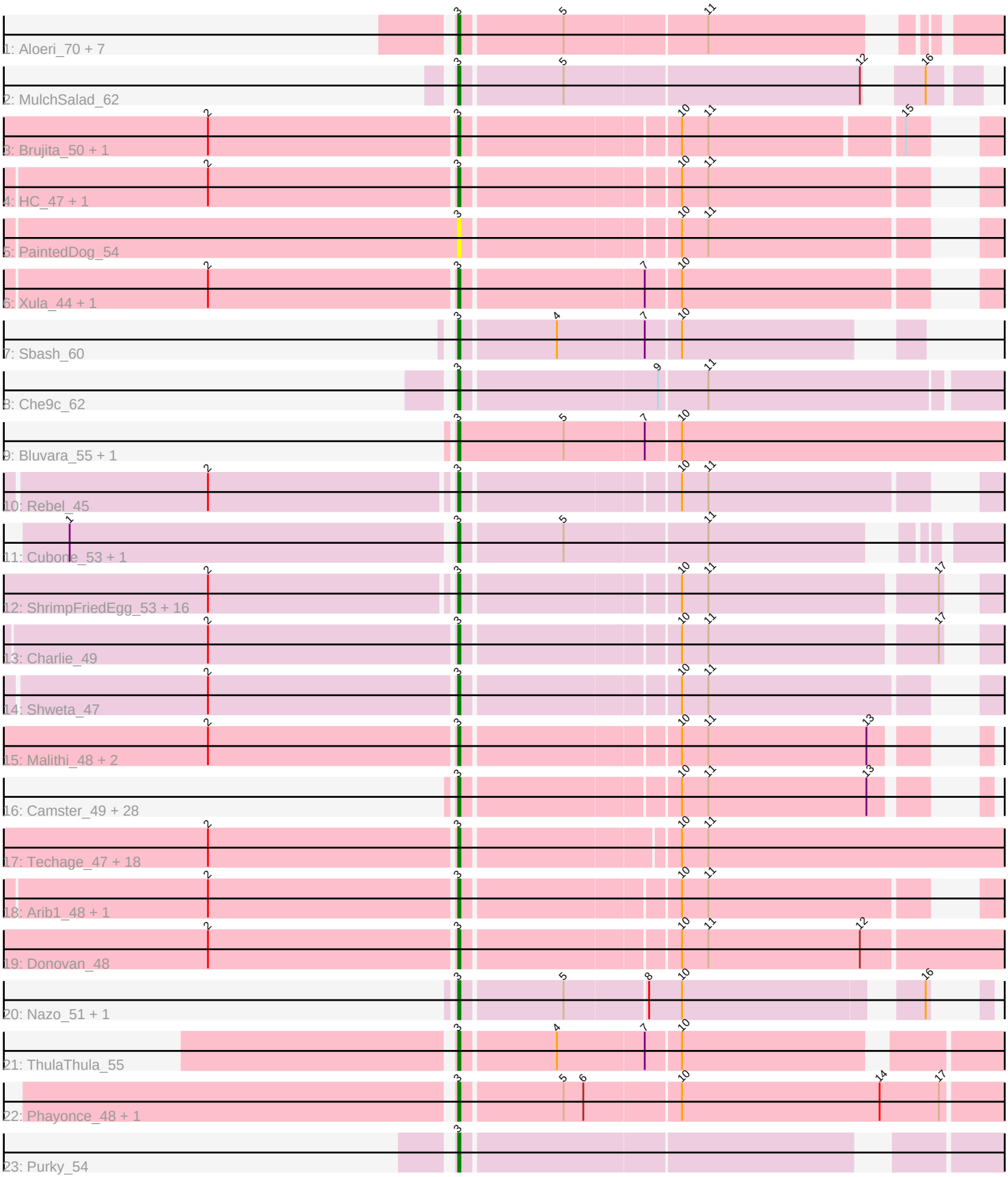
Pham 334649


1: Aloeri_70 + 7
2: MulchSalad_62
3: Brujita_50 + 1
4: HC_47 + 1
5: PaintedDog_54
6: Xula_44 + 1
7: Sbash_60
8: Che9c_62
9: Bluvara_55 + 1
10: Rebel_45
11: Cubone_53 + 1
12: ShrimpFriedEgg_53 + 16
13: Charlie_49
14: Shweta_47
15: Malithi_48 + 2
16: Camster_49 + 28
17: Techage_47 + 18
18: Arib1_48 + 1
19: Donovan_48
20: Nazo_51 + 1
21: ThulaThula_55
22: Phayonce_48 + 1
23: Purky_54

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 334649 Report

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

Pham number 334649 has 102 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Aloeri_70, ChickenDinner_69, DocMcStuffins_69, Misha28_67, Awesomesauce_69, Piper2020_70, LilSpotty_66, TootsiePop_67
• Track 2 : MulchSalad_62
• Track 3 : Brujita_50, Island3_50
• Track 4 : HC_47, Babsiella_49
• Track 5 : PaintedDog_54
• Track 6 : Xula_44, QueenHazel_45
• Track 7 : Sbash_60
• Track 8 : Che9c_62
• Track 9 : Bluvara_55, Stuck_62
• Track 10 : Rebel_45
• Track 11 : Cubone_53, SkinnyPete_47
• Track 12 : ShrimpFriedEgg_53, Nenae_53, Spinach_53, Jamie19_47, Hanako_53, Purgamenstris_53, Raymond7_47, Impisi_54, Panchino_46, BabeRuth_54, Andies_46, PhancyPhin_53, SpongeBob_47, Bosection6_47, Redi_53, Phrann_50, Snekmaggedon_47
• Track 13 : Charlie_49
• Track 14 : Shweta_47
• Track 15 : Malithi_48, Necropolis_47, Dynamo_48
• Track 16 : Camster_49, CactusJack_48, Pygmy_52, Thespis_48, PeanutPie_49, Xeno_50, GreaseLightnin_49, Willsammy_47, Phineas_50, StevieRay_48, Glaske_48, Brusacoram_48, KilKor_48, Phalm_48, Silvy_48, Gavriela_48, Juniormint_49, Bogie_52, Megiddo_48, HUHilltop_50, Shipwreck_52, Ksquared_48, Bunnies_49, StressBall_48, Bhagsy_49, Atcoo_48, Philonius_50, Sonah_49, Aggie_48
• Track 17 : Techage_47, Phegasus_48, Venti_48, Vidya_47, FirstPlacePfu_48, GaloreK_47, Etoile_47, Chubbello_47, Kari_47, Zilizebeth_48, Jebeks_49, Langerak_48, Fishburne_47, Journey_48, Mangethe_48, Majeke_48, Bartholomew_47, Polkaroo_48, BronnyJr_46
• Track 18 : Arib1_48, Jung_46
• Track 19 : Donovan_48
• Track 20 : Nazo_51, BigNuz_50
• Track 21 : ThulaThula_55
• Track 22 : Phayonce_48, Mao1_66
• Track 23 : Purky_54

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

The start number called the most often in the published annotations is 3, it was called in 94 of the 94 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aggie_48, Aloeri_70, Andies_46, Arib1_48, Atcoo_48, Awesomesauce_69, BabeRuth_54, Babsiella_49, Bartholomew_47, Bhagsy_49, BigNuz_50, Bluvara_55, Bogie_52, Bosection6_47, BronnyJr_46, Brujita_50, Brusacoram_48, Bunnies_49, CactusJack_48, Camster_49, Charlie_49, Che9c_62, ChickenDinner_69, Chubbello_47, Cubone_53, DocMcStuffins_69, Donovan_48, Dynamo_48, Etoile_47, FirstPlacePfu_48, Fishburne_47, GaloreK_47, Gavriela_48, Glaske_48, GreaseLightnin_49, HC_47, HUHilltop_50, Hanako_53, Impisi_54, Island3_50, Jamie19_47, Jebeks_49, Journey_48, Jung_46, Juniormint_49, Kari_47, KilKor_48, Ksquared_48, Langerak_48, LilSpotty_66, Majeke_48, Malithi_48, Mangethe_48, Mao1_66, Megiddo_48, Misha28_67, MulchSalad_62, Nazo_51, Necropolis_47, Nenae_53, PaintedDog_54, Panchino_46, PeanutPie_49, Phalm_48, PhancyPhin_53, Phayonce_48, Phegasus_48, Philonius_50, Phineas_50, Phrann_50, Piper2020_70, Polkaroo_48, Purgamenstris_53, Purky_54, Pygmy_52, QueenHazel_45, Raymond7_47, Rebel_45, Redi_53, Sbash_60, Shipwreck_52, ShrimpFriedEgg_53, Shweta_47, Silvy_48, SkinnyPete_47, Snekmaggedon_47, Sonah_49, Spinach_53, SpongeBob_47, StevieRay_48, StressBall_48, Stuck_62, Techage_47, Thespis_48, ThulaThula_55, TootsiePop_67, Venti_48, Vidya_47, Willsammy_47, Xeno_50, Xula_44, Zilizebeth_48,

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

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

Summary by start number:

Start 3:
• Found in 102 of 102 (100.0%) of genes in pham
• Manual Annotations of this start: 94 of 94
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aggie_48 (N), Aloeri_70 (F1), Andies_46 (N), Arib1_48 (P1), Atcoo_48 (P1), Awesomesauce_69 (F1), BabeRuth_54 (N), Babsiella_49 (I1), Bartholomew_47 (P1), Bhagsy_49 (P1), BigNuz_50 (P4), Bluvara_55 (I3), Bogie_52 (P1), Bosection6_47 (N), BronnyJr_46 (P1), Brujita_50 (I1), Brusacoram_48 (P1), Bunnies_49 (P1), CactusJack_48 (P1), Camster_49 (P1), Charlie_49 (N), Che9c_62 (I2), ChickenDinner_69 (F1), Chubbello_47 (P1), Cubone_53 (N), DocMcStuffins_69 (F1), Donovan_48 (P1), Dynamo_48 (P1), Etoile_47 (P1), FirstPlacePfu_48 (P1), Fishburne_47 (P1), GaloreK_47 (P1), Gavriela_48 (P1), Glaske_48 (P1), GreaseLightnin_49 (P1), HC_47 (I1), HUHilltop_50 (P1), Hanako_53 (N), Impisi_54 (N), Island3_50 (I1), Jamie19_47 (N), Jebeks_49 (P1), Journey_48 (N), Jung_46 (P1), Juniormint_49 (P1), Kari_47 (P1), KilKor_48 (P1), Ksquared_48 (P1), Langerak_48 (P1), LilSpotty_66 (singleton), Majeke_48 (P1), Malithi_48 (P1), Mangethe_48 (P1), Mao1_66 (AD), Megiddo_48 (P1), Misha28_67 (F1), MulchSalad_62 (F7), Nazo_51 (P4), Necropolis_47 (P1), Nenae_53 (N), PaintedDog_54 (I1), Panchino_46 (N), PeanutPie_49 (P1), Phalm_48

(P1), PhancyPhin_53 (N), Phayonce_48 (P5), Phegasus_48 (P1), Philonius_50 (N), Phineas_50 (P1), Phrann_50 (N), Piper2020_70 (F1), Polkaroo_48 (P1), Purgamenstris_53 (N), Purky_54 (P6), Pygmy_52 (P1), QueenHazel_45 (I1), Raymond7_47 (N), Rebel_45 (N), Redi_53 (N), Sbash_60 (I2), Shipwreck_52 (P1), ShrimpFriedEgg_53 (N), Shweta_47 (N), Silvy_48 (N), SkinnyPete_47 (N), Snekmaggedon_47 (N), Sonah_49 (P1), Spinach_53 (N), SpongeBob_47 (N), StevieRay_48 (P1), StressBall_48 (P1), Stuck_62 (I2), Techage_47 (P1), Thespis_48 (P1), ThulaThula_55 (P5), TootsiePop_67 (F1), Venti_48 (P1), Vidya_47 (P1), Willsammy_47 (P1), Xeno_50 (N), Xula_44 (I1), Zilizebeth_48 (P1),

Summary by clusters:

There are 12 clusters represented in this pham: F1, singleton, P1, P6, AD, P4, P5, I1, I3, F7, N, I2,

Info for manual annotations of cluster AD:
•Start number 3 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster F1:
•Start number 3 was manually annotated 7 times for cluster F1.

Info for manual annotations of cluster F7:
•Start number 3 was manually annotated 1 time for cluster F7.

Info for manual annotations of cluster I1:
•Start number 3 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:
•Start number 3 was manually annotated 3 times for cluster I2.

Info for manual annotations of cluster N:
•Start number 3 was manually annotated 26 times for cluster N.

Info for manual annotations of cluster P1:
•Start number 3 was manually annotated 44 times for cluster P1.

Info for manual annotations of cluster P4:
•Start number 3 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:
•Start number 3 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:
•Start number 3 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Aggie_48 Start: 33321, Stop: 33659, Start Num: 3
Candidate Starts for Aggie_48:
(Start: 3 @33321 has 94 MA's), (10, 33414), (11, 33426), (13, 33498),

Gene: Aloeri_70 Start: 43386, Stop: 43640, Start Num: 3
Candidate Starts for Aloeri_70:
(Start: 3 @43386 has 94 MA's), (5, 43431), (11, 43494),

Gene: Andies_46 Start: 33704, Stop: 34066, Start Num: 3
Candidate Starts for Andies_46:
(2, 33596), (Start: 3 @33704 has 94 MA's), (10, 33797), (11, 33809), (17, 33908),

Gene: Arib1_48 Start: 33541, Stop: 33789, Start Num: 3
Candidate Starts for Arib1_48:
(2, 33430), (Start: 3 @33541 has 94 MA's), (10, 33634), (11, 33646),

Gene: Atcoo_48 Start: 34210, Stop: 34548, Start Num: 3
Candidate Starts for Atcoo_48:
(Start: 3 @34210 has 94 MA's), (10, 34303), (11, 34315), (13, 34387),

Gene: Awesomesauce_69 Start: 42469, Stop: 42723, Start Num: 3
Candidate Starts for Awesomesauce_69:
(Start: 3 @42469 has 94 MA's), (5, 42514), (11, 42577),

Gene: BabeRuth_54 Start: 35425, Stop: 35787, Start Num: 3
Candidate Starts for BabeRuth_54:
(2, 35317), (Start: 3 @35425 has 94 MA's), (10, 35518), (11, 35530), (17, 35629),

Gene: Babsiella_49 Start: 34394, Stop: 34642, Start Num: 3
Candidate Starts for Babsiella_49:
(2, 34283), (Start: 3 @34394 has 94 MA's), (10, 34487), (11, 34499),

Gene: Bartholomew_47 Start: 33532, Stop: 33813, Start Num: 3
Candidate Starts for Bartholomew_47:
(2, 33421), (Start: 3 @33532 has 94 MA's), (10, 33625), (11, 33637),

Gene: Bhagsy_49 Start: 33715, Stop: 34053, Start Num: 3
Candidate Starts for Bhagsy_49:
(Start: 3 @33715 has 94 MA's), (10, 33808), (11, 33820), (13, 33892),

Gene: BigNuz_50 Start: 35709, Stop: 36041, Start Num: 3
Candidate Starts for BigNuz_50:
(Start: 3 @35709 has 94 MA's), (5, 35754), (8, 35790), (10, 35805), (16, 35901),

Gene: Bluvara_55 Start: 39295, Stop: 39582, Start Num: 3
Candidate Starts for Bluvara_55:
(Start: 3 @39295 has 94 MA's), (5, 39343), (7, 39379), (10, 39394),

Gene: Bogie_52 Start: 35981, Stop: 36319, Start Num: 3
Candidate Starts for Bogie_52:
(Start: 3 @35981 has 94 MA's), (10, 36074), (11, 36086), (13, 36158),

Gene: Bosection6_47 Start: 33170, Stop: 33532, Start Num: 3
Candidate Starts for Bosection6_47:
(2, 33062), (Start: 3 @33170 has 94 MA's), (10, 33263), (11, 33275), (17, 33374),

Gene: BronnyJr_46 Start: 34028, Stop: 34309, Start Num: 3
Candidate Starts for BronnyJr_46:
(2, 33917), (Start: 3 @34028 has 94 MA's), (10, 34121), (11, 34133),

Gene: Brujita_50 Start: 35851, Stop: 36060, Start Num: 3
Candidate Starts for Brujita_50:
(2, 35740), (Start: 3 @35851 has 94 MA's), (10, 35944), (11, 35956), (15, 36040),

Gene: Brusacoram_48 Start: 33716, Stop: 34054, Start Num: 3
Candidate Starts for Brusacoram_48:
(Start: 3 @33716 has 94 MA's), (10, 33809), (11, 33821), (13, 33893),

Gene: Bunnies_49 Start: 33730, Stop: 34068, Start Num: 3
Candidate Starts for Bunnies_49:
(Start: 3 @33730 has 94 MA's), (10, 33823), (11, 33835), (13, 33907),

Gene: CactusJack_48 Start: 33980, Stop: 34318, Start Num: 3
Candidate Starts for CactusJack_48:
(Start: 3 @33980 has 94 MA's), (10, 34073), (11, 34085), (13, 34157),

Gene: Camster_49 Start: 33737, Stop: 34075, Start Num: 3
Candidate Starts for Camster_49:
(Start: 3 @33737 has 94 MA's), (10, 33830), (11, 33842), (13, 33914),

Gene: Charlie_49 Start: 32909, Stop: 33271, Start Num: 3
Candidate Starts for Charlie_49:
(2, 32798), (Start: 3 @32909 has 94 MA's), (10, 33002), (11, 33014), (17, 33113),

Gene: Che9c_62 Start: 44754, Stop: 45029, Start Num: 3
Candidate Starts for Che9c_62:
(Start: 3 @44754 has 94 MA's), (9, 44841), (11, 44862),

Gene: ChickenDinner_69 Start: 43386, Stop: 43640, Start Num: 3
Candidate Starts for ChickenDinner_69:
(Start: 3 @43386 has 94 MA's), (5, 43431), (11, 43494),

Gene: Chubbello_47 Start: 33528, Stop: 33809, Start Num: 3
Candidate Starts for Chubbello_47:
(2, 33417), (Start: 3 @33528 has 94 MA's), (10, 33621), (11, 33633),

Gene: Cubone_53 Start: 33959, Stop: 34213, Start Num: 3
Candidate Starts for Cubone_53:
(1, 33788), (Start: 3 @33959 has 94 MA's), (5, 34004), (11, 34067),

Gene: DocMcStuffins_69 Start: 43386, Stop: 43640, Start Num: 3
Candidate Starts for DocMcStuffins_69:
(Start: 3 @43386 has 94 MA's), (5, 43431), (11, 43494),

Gene: Donovan_48 Start: 33555, Stop: 33947, Start Num: 3
Candidate Starts for Donovan_48:
(2, 33444), (Start: 3 @33555 has 94 MA's), (10, 33648), (11, 33660), (12, 33729),

Gene: Dynamo_48 Start: 34015, Stop: 34353, Start Num: 3

Candidate Starts for Dynamo_48:
(2, 33904), (Start: 3 @34015 has 94 MA's), (10, 34108), (11, 34120), (13, 34192),

Gene: Etoile_47 Start: 33532, Stop: 33813, Start Num: 3
Candidate Starts for Etoile_47:
(2, 33421), (Start: 3 @33532 has 94 MA's), (10, 33625), (11, 33637),

Gene: FirstPlacePfu_48 Start: 33564, Stop: 33845, Start Num: 3
Candidate Starts for FirstPlacePfu_48:
(2, 33453), (Start: 3 @33564 has 94 MA's), (10, 33657), (11, 33669),

Gene: Fishburne_47 Start: 33532, Stop: 33813, Start Num: 3
Candidate Starts for Fishburne_47:
(2, 33421), (Start: 3 @33532 has 94 MA's), (10, 33625), (11, 33637),

Gene: GaloreK_47 Start: 33528, Stop: 33809, Start Num: 3
Candidate Starts for GaloreK_47:
(2, 33417), (Start: 3 @33528 has 94 MA's), (10, 33621), (11, 33633),

Gene: Gavriela_48 Start: 33980, Stop: 34318, Start Num: 3
Candidate Starts for Gavriela_48:
(Start: 3 @33980 has 94 MA's), (10, 34073), (11, 34085), (13, 34157),

Gene: Glaske_48 Start: 33980, Stop: 34318, Start Num: 3
Candidate Starts for Glaske_48:
(Start: 3 @33980 has 94 MA's), (10, 34073), (11, 34085), (13, 34157),

Gene: GreaseLightnin_49 Start: 33959, Stop: 34297, Start Num: 3
Candidate Starts for GreaseLightnin_49:
(Start: 3 @33959 has 94 MA's), (10, 34052), (11, 34064), (13, 34136),

Gene: HC_47 Start: 33178, Stop: 33426, Start Num: 3
Candidate Starts for HC_47:
(2, 33067), (Start: 3 @33178 has 94 MA's), (10, 33271), (11, 33283),

Gene: HUHilltop_50 Start: 34238, Stop: 34576, Start Num: 3
Candidate Starts for HUHilltop_50:
(Start: 3 @34238 has 94 MA's), (10, 34331), (11, 34343), (13, 34415),

Gene: Hanako_53 Start: 35425, Stop: 35787, Start Num: 3
Candidate Starts for Hanako_53:
(2, 35317), (Start: 3 @35425 has 94 MA's), (10, 35518), (11, 35530), (17, 35629),

Gene: Impisi_54 Start: 35222, Stop: 35584, Start Num: 3
Candidate Starts for Impisi_54:
(2, 35114), (Start: 3 @35222 has 94 MA's), (10, 35315), (11, 35327), (17, 35426),

Gene: Island3_50 Start: 35851, Stop: 36060, Start Num: 3
Candidate Starts for Island3_50:
(2, 35740), (Start: 3 @35851 has 94 MA's), (10, 35944), (11, 35956), (15, 36040),

Gene: Jamie19_47 Start: 33716, Stop: 34078, Start Num: 3
Candidate Starts for Jamie19_47:

(2, 33608), (Start: 3 @33716 has 94 MA's), (10, 33809), (11, 33821), (17, 33920),

Gene: Jebeks_49 Start: 33592, Stop: 33873, Start Num: 3
Candidate Starts for Jebeks_49:
(2, 33481), (Start: 3 @33592 has 94 MA's), (10, 33685), (11, 33697),

Gene: Journey_48 Start: 32909, Stop: 33190, Start Num: 3
Candidate Starts for Journey_48:
(2, 32798), (Start: 3 @32909 has 94 MA's), (10, 33002), (11, 33014),

Gene: Jung_46 Start: 33493, Stop: 33741, Start Num: 3
Candidate Starts for Jung_46:
(2, 33382), (Start: 3 @33493 has 94 MA's), (10, 33586), (11, 33598),

Gene: Juniormint_49 Start: 33752, Stop: 34090, Start Num: 3
Candidate Starts for Juniormint_49:
(Start: 3 @33752 has 94 MA's), (10, 33845), (11, 33857), (13, 33929),

Gene: Kari_47 Start: 33529, Stop: 33810, Start Num: 3
Candidate Starts for Kari_47:
(2, 33418), (Start: 3 @33529 has 94 MA's), (10, 33622), (11, 33634),

Gene: KilKor_48 Start: 33980, Stop: 34318, Start Num: 3
Candidate Starts for KilKor_48:
(Start: 3 @33980 has 94 MA's), (10, 34073), (11, 34085), (13, 34157),

Gene: Ksquared_48 Start: 33730, Stop: 34068, Start Num: 3
Candidate Starts for Ksquared_48:
(Start: 3 @33730 has 94 MA's), (10, 33823), (11, 33835), (13, 33907),

Gene: Langerak_48 Start: 33548, Stop: 33829, Start Num: 3
Candidate Starts for Langerak_48:
(2, 33437), (Start: 3 @33548 has 94 MA's), (10, 33641), (11, 33653),

Gene: LilSpotty_66 Start: 41177, Stop: 41446, Start Num: 3
Candidate Starts for LilSpotty_66:
(Start: 3 @41177 has 94 MA's), (5, 41222), (11, 41285),

Gene: Majeke_48 Start: 33573, Stop: 33854, Start Num: 3
Candidate Starts for Majeke_48:
(2, 33462), (Start: 3 @33573 has 94 MA's), (10, 33666), (11, 33678),

Gene: Malithi_48 Start: 33448, Stop: 33786, Start Num: 3
Candidate Starts for Malithi_48:
(2, 33337), (Start: 3 @33448 has 94 MA's), (10, 33541), (11, 33553), (13, 33625),

Gene: Mangethe_48 Start: 33573, Stop: 33854, Start Num: 3
Candidate Starts for Mangethe_48:
(2, 33462), (Start: 3 @33573 has 94 MA's), (10, 33666), (11, 33678),

Gene: Mao1_66 Start: 49457, Stop: 49738, Start Num: 3
Candidate Starts for Mao1_66:
(Start: 3 @49457 has 94 MA's), (5, 49502), (6, 49511), (10, 49553), (14, 49643), (17, 49670),

Gene: Megiddo_48 Start: 33980, Stop: 34318, Start Num: 3
Candidate Starts for Megiddo_48:
(Start: 3 @33980 has 94 MA's), (10, 34073), (11, 34085), (13, 34157),

Gene: Misha28_67 Start: 42474, Stop: 42728, Start Num: 3
Candidate Starts for Misha28_67:
(Start: 3 @42474 has 94 MA's), (5, 42519), (11, 42582),

Gene: MulchSalad_62 Start: 40577, Stop: 40789, Start Num: 3
Candidate Starts for MulchSalad_62:
(Start: 3 @40577 has 94 MA's), (5, 40622), (12, 40754), (16, 40769),

Gene: Nazo_51 Start: 35906, Stop: 36238, Start Num: 3
Candidate Starts for Nazo_51:
(Start: 3 @35906 has 94 MA's), (5, 35951), (8, 35987), (10, 36002), (16, 36098),

Gene: Necropolis_47 Start: 33604, Stop: 33942, Start Num: 3
Candidate Starts for Necropolis_47:
(2, 33493), (Start: 3 @33604 has 94 MA's), (10, 33697), (11, 33709), (13, 33781),

Gene: Nenae_53 Start: 35427, Stop: 35789, Start Num: 3
Candidate Starts for Nenae_53:
(2, 35319), (Start: 3 @35427 has 94 MA's), (10, 35520), (11, 35532), (17, 35631),

Gene: PaintedDog_54 Start: 36368, Stop: 36616, Start Num: 3
Candidate Starts for PaintedDog_54:
(Start: 3 @36368 has 94 MA's), (10, 36461), (11, 36473),

Gene: Panchino_46 Start: 35062, Stop: 35424, Start Num: 3
Candidate Starts for Panchino_46:
(2, 34954), (Start: 3 @35062 has 94 MA's), (10, 35155), (11, 35167), (17, 35266),

Gene: PeanutPie_49 Start: 33715, Stop: 34056, Start Num: 3
Candidate Starts for PeanutPie_49:
(Start: 3 @33715 has 94 MA's), (10, 33808), (11, 33820), (13, 33892),

Gene: Phalm_48 Start: 33980, Stop: 34318, Start Num: 3
Candidate Starts for Phalm_48:
(Start: 3 @33980 has 94 MA's), (10, 34073), (11, 34085), (13, 34157),

Gene: PhancyPhin_53 Start: 35421, Stop: 35783, Start Num: 3
Candidate Starts for PhancyPhin_53:
(2, 35313), (Start: 3 @35421 has 94 MA's), (10, 35514), (11, 35526), (17, 35625),

Gene: Phayonce_48 Start: 35619, Stop: 35900, Start Num: 3
Candidate Starts for Phayonce_48:
(Start: 3 @35619 has 94 MA's), (5, 35664), (6, 35673), (10, 35715), (14, 35805), (17, 35832),

Gene: Phegasus_48 Start: 33540, Stop: 33821, Start Num: 3
Candidate Starts for Phegasus_48:
(2, 33429), (Start: 3 @33540 has 94 MA's), (10, 33633), (11, 33645),

Gene: Philonius_50 Start: 32850, Stop: 33188, Start Num: 3
Candidate Starts for Philonius_50:
(Start: 3 @32850 has 94 MA's), (10, 32943), (11, 32955), (13, 33027),

Gene: Phineas_50 Start: 34573, Stop: 34911, Start Num: 3
Candidate Starts for Phineas_50:
(Start: 3 @34573 has 94 MA's), (10, 34666), (11, 34678), (13, 34750),

Gene: Phrann_50 Start: 35704, Stop: 36066, Start Num: 3
Candidate Starts for Phrann_50:
(2, 35596), (Start: 3 @35704 has 94 MA's), (10, 35797), (11, 35809), (17, 35908),

Gene: Piper2020_70 Start: 43369, Stop: 43623, Start Num: 3
Candidate Starts for Piper2020_70:
(Start: 3 @43369 has 94 MA's), (5, 43414), (11, 43477),

Gene: Polkaroo_48 Start: 33536, Stop: 33817, Start Num: 3
Candidate Starts for Polkaroo_48:
(2, 33425), (Start: 3 @33536 has 94 MA's), (10, 33629), (11, 33641),

Gene: Purgamenstris_53 Start: 35425, Stop: 35787, Start Num: 3
Candidate Starts for Purgamenstris_53:
(2, 35317), (Start: 3 @35425 has 94 MA's), (10, 35518), (11, 35530), (17, 35629),

Gene: Purky_54 Start: 36323, Stop: 36583, Start Num: 3
Candidate Starts for Purky_54:
(Start: 3 @36323 has 94 MA's),

Gene: Pygmy_52 Start: 36037, Stop: 36375, Start Num: 3
Candidate Starts for Pygmy_52:
(Start: 3 @36037 has 94 MA's), (10, 36130), (11, 36142), (13, 36214),

Gene: QueenHazel_45 Start: 33693, Stop: 33944, Start Num: 3
Candidate Starts for QueenHazel_45:
(2, 33582), (Start: 3 @33693 has 94 MA's), (7, 33774), (10, 33789),

Gene: Raymond7_47 Start: 35213, Stop: 35575, Start Num: 3
Candidate Starts for Raymond7_47:
(2, 35105), (Start: 3 @35213 has 94 MA's), (10, 35306), (11, 35318), (17, 35417),

Gene: Rebel_45 Start: 31555, Stop: 31803, Start Num: 3
Candidate Starts for Rebel_45:
(2, 31447), (Start: 3 @31555 has 94 MA's), (10, 31648), (11, 31660),

Gene: Redi_53 Start: 35424, Stop: 35786, Start Num: 3
Candidate Starts for Redi_53:
(2, 35316), (Start: 3 @35424 has 94 MA's), (10, 35517), (11, 35529), (17, 35628),

Gene: Sbash_60 Start: 42587, Stop: 42808, Start Num: 3
Candidate Starts for Sbash_60:
(Start: 3 @42587 has 94 MA's), (4, 42629), (7, 42668), (10, 42683),

Gene: Shipwreck_52 Start: 36012, Stop: 36350, Start Num: 3

Candidate Starts for Shipwreck_52:
(Start: 3 @36012 has 94 MA's), (10, 36105), (11, 36117), (13, 36189),

Gene: ShrimpFriedEgg_53 Start: 35424, Stop: 35786, Start Num: 3
Candidate Starts for ShrimpFriedEgg_53:
(2, 35316), (Start: 3 @35424 has 94 MA's), (10, 35517), (11, 35529), (17, 35628),

Gene: Shweta_47 Start: 33486, Stop: 33734, Start Num: 3
Candidate Starts for Shweta_47:
(2, 33375), (Start: 3 @33486 has 94 MA's), (10, 33579), (11, 33591),

Gene: Silvy_48 Start: 33321, Stop: 33659, Start Num: 3
Candidate Starts for Silvy_48:
(Start: 3 @33321 has 94 MA's), (10, 33414), (11, 33426), (13, 33498),

Gene: SkinnyPete_47 Start: 32845, Stop: 33099, Start Num: 3
Candidate Starts for SkinnyPete_47:
(1, 32674), (Start: 3 @32845 has 94 MA's), (5, 32890), (11, 32953),

Gene: Snekmaggedon_47 Start: 33716, Stop: 34078, Start Num: 3
Candidate Starts for Snekmaggedon_47:
(2, 33608), (Start: 3 @33716 has 94 MA's), (10, 33809), (11, 33821), (17, 33920),

Gene: Sonah_49 Start: 33709, Stop: 34047, Start Num: 3
Candidate Starts for Sonah_49:
(Start: 3 @33709 has 94 MA's), (10, 33802), (11, 33814), (13, 33886),

Gene: Spinach_53 Start: 35424, Stop: 35786, Start Num: 3
Candidate Starts for Spinach_53:
(2, 35316), (Start: 3 @35424 has 94 MA's), (10, 35517), (11, 35529), (17, 35628),

Gene: SpongeBob_47 Start: 33716, Stop: 34078, Start Num: 3
Candidate Starts for SpongeBob_47:
(2, 33608), (Start: 3 @33716 has 94 MA's), (10, 33809), (11, 33821), (17, 33920),

Gene: StevieRay_48 Start: 33682, Stop: 34020, Start Num: 3
Candidate Starts for StevieRay_48:
(Start: 3 @33682 has 94 MA's), (10, 33775), (11, 33787), (13, 33859),

Gene: StressBall_48 Start: 33980, Stop: 34318, Start Num: 3
Candidate Starts for StressBall_48:
(Start: 3 @33980 has 94 MA's), (10, 34073), (11, 34085), (13, 34157),

Gene: Stuck_62 Start: 44148, Stop: 44435, Start Num: 3
Candidate Starts for Stuck_62:
(Start: 3 @44148 has 94 MA's), (5, 44196), (7, 44232), (10, 44247),

Gene: Techage_47 Start: 33558, Stop: 33839, Start Num: 3
Candidate Starts for Techage_47:
(2, 33447), (Start: 3 @33558 has 94 MA's), (10, 33651), (11, 33663),

Gene: Thespis_48 Start: 33716, Stop: 34054, Start Num: 3
Candidate Starts for Thespis_48:

(Start: 3 @33716 has 94 MA's), (10, 33809), (11, 33821), (13, 33893),

Gene: ThulaThula_55 Start: 38396, Stop: 38662, Start Num: 3
Candidate Starts for ThulaThula_55:
(Start: 3 @38396 has 94 MA's), (4, 38438), (7, 38477), (10, 38492),

Gene: TootsiePop_67 Start: 42474, Stop: 42728, Start Num: 3
Candidate Starts for TootsiePop_67:
(Start: 3 @42474 has 94 MA's), (5, 42519), (11, 42582),

Gene: Venti_48 Start: 33532, Stop: 33813, Start Num: 3
Candidate Starts for Venti_48:
(2, 33421), (Start: 3 @33532 has 94 MA's), (10, 33625), (11, 33637),

Gene: Vidya_47 Start: 33565, Stop: 33846, Start Num: 3
Candidate Starts for Vidya_47:
(2, 33454), (Start: 3 @33565 has 94 MA's), (10, 33658), (11, 33670),

Gene: Willsammy_47 Start: 33463, Stop: 33801, Start Num: 3
Candidate Starts for Willsammy_47:
(Start: 3 @33463 has 94 MA's), (10, 33556), (11, 33568), (13, 33640),

Gene: Xeno_50 Start: 33058, Stop: 33396, Start Num: 3
Candidate Starts for Xeno_50:
(Start: 3 @33058 has 94 MA's), (10, 33151), (11, 33163), (13, 33235),

Gene: Xula_44 Start: 33295, Stop: 33546, Start Num: 3
Candidate Starts for Xula_44:
(2, 33184), (Start: 3 @33295 has 94 MA's), (7, 33376), (10, 33391),

Gene: Zilizebeth_48 Start: 33564, Stop: 33845, Start Num: 3
Candidate Starts for Zilizebeth_48:
(2, 33453), (Start: 3 @33564 has 94 MA's), (10, 33657), (11, 33669),