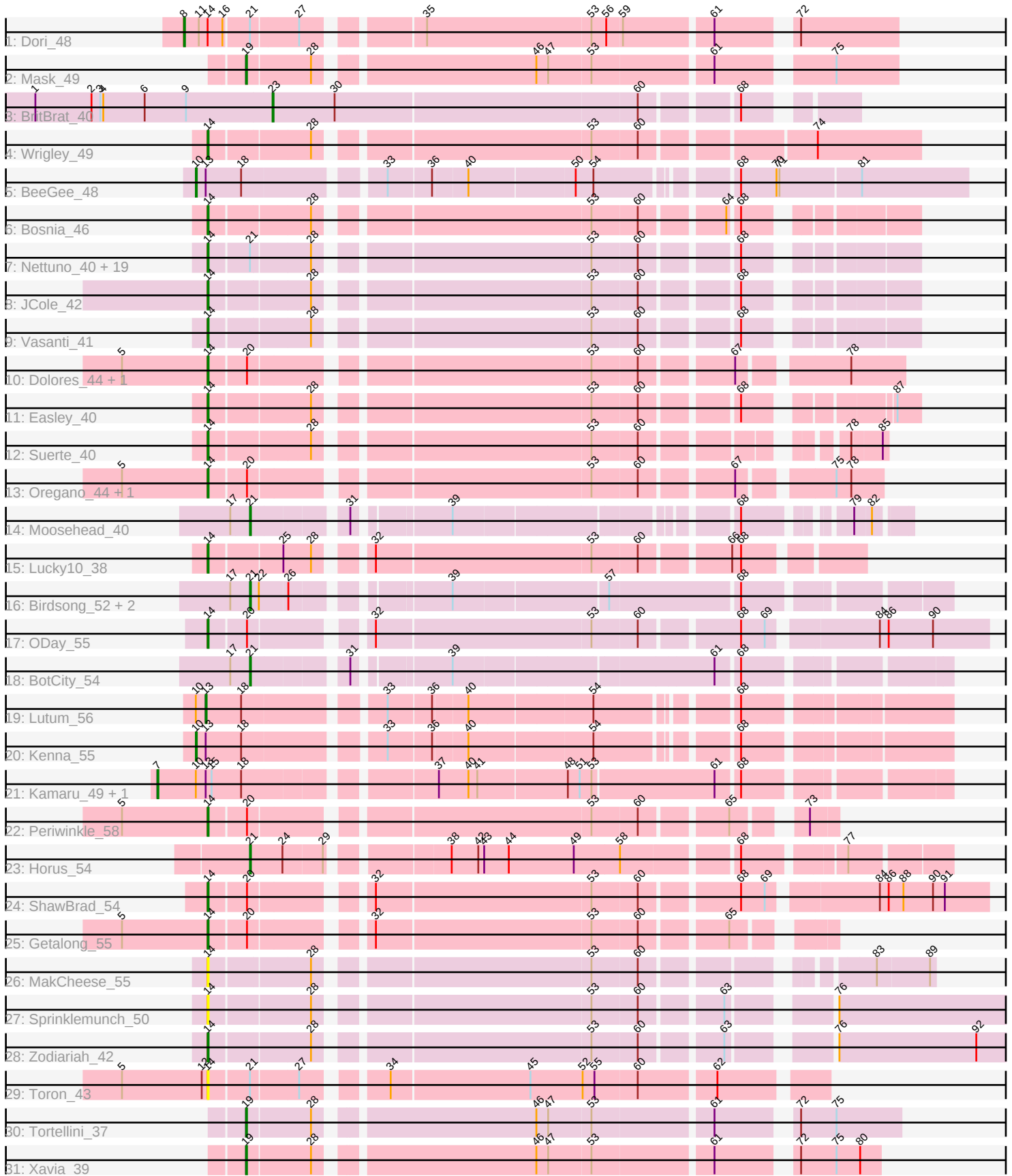


Pham 327103



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 327103 Report

This analysis was run 09/05/26 on database version 662.

Pham number 327103 has 55 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Dori_48
- Track 2 : Mask_49
- Track 3 : BritBrat_40
- Track 4 : Wrigley_49
- Track 5 : BeeGee_48
- Track 6 : Bosnia_46
- Track 7 : Nettuno_40, Lamberg_40, Whiteclaw_44, GemG_44, Floral_42, Gizermo_44, Ebert_46, Matteo_37, Sahara_43, Mocha12_44, Sproutie_44, Bjaner7_41, Savage_44, Yinzer_44, Jalleen_44, TuertoX_44, Pollux_44, Cynthia_44, Clap_44, Haley23_44
- Track 8 : JCole_42
- Track 9 : Vasanti_41
- Track 10 : Dolores_44, WinkNick_45
- Track 11 : Easley_40
- Track 12 : Suerte_40
- Track 13 : Oregano_44, Annalisa_41
- Track 14 : Moosehead_40
- Track 15 : Lucky10_38
- Track 16 : Birdsong_52, Asapag_52, Phabuloso_53
- Track 17 : ODay_55
- Track 18 : BotCity_54
- Track 19 : Lutum_56
- Track 20 : Kenna_55
- Track 21 : Kamaru_49, LitninMcQueen_48
- Track 22 : Periwinkle_58
- Track 23 : Horus_54
- Track 24 : ShawBrad_54
- Track 25 : Getalong_55
- Track 26 : MakCheese_55
- Track 27 : Sprinklemunch_50
- Track 28 : Zodiariah_42
- Track 29 : Toron_43
- Track 30 : Tortellini_37
- Track 31 : Xavia_39

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

The start number called the most often in the published annotations is 14, it was called in 34 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Annalisa_41, Bjanese_41, Bosnia_46, Clap_44, Cynthia_44, Dolores_44, Easley_40, Ebert_46, Floral_42, GemG_44, Getalong_55, Gizermo_44, Haley23_44, JCole_42, Jalleen_44, Lamberg_40, Lucky10_38, MakCheese_55, Matteo_37, Mocha12_44, Nettuno_40, ODay_55, Oregano_44, Periwinkle_58, Pollux_44, Sahara_43, Savage_44, ShawBrad_54, Sprinklemunch_50, Sproutie_44, Suerte_40, Toron_43, TuertoX_44, Vasanti_41, Whiteclaw_44, WinkNick_45, Wrigley_49, Yinzer_44, Zodiariah_42,

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

• Dori_48,

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

• Asapag_52, BeeGee_48, Birdsong_52, BotCity_54, BritBrat_40, Horus_54, Kamaru_49, Kenna_55, LitninMcQueen_48, Lutum_56, Mask_49, Moosehead_40, Phabuloso_53, Tortellini_37, Xavia_39,

Summary by start number:

Start 7:

- Found in 2 of 55 (3.6%) of genes in pham
- Manual Annotations of this start: 2 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kamaru_49 (DN1), LitninMcQueen_48 (DN1),

Start 8:

- Found in 1 of 55 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dori_48 (AD),

Start 10:

- Found in 5 of 55 (9.1%) of genes in pham
- Manual Annotations of this start: 2 of 50
- Called 40.0% of time when present
- Phage (with cluster) where this start called: BeeGee_48 (CY5), Kenna_55 (DN1),

Start 13:

- Found in 5 of 55 (9.1%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Lutum_56 (DN1),

Start 14:

- Found in 40 of 55 (72.7%) of genes in pham
- Manual Annotations of this start: 34 of 50

- Called 97.5% of time when present
- Phage (with cluster) where this start called: Annalisa_41 (CZ4), Bjanese7_41 (CZ2), Bosnia_46 (CZ1), Clap_44 (CZ2), Cynthia_44 (CZ2), Dolores_44 (CZ4), Easley_40 (CZ4), Ebert_46 (CZ2), Floral_42 (CY1), GemG_44 (CZ2), Getalong_55 (DN1), Gizermo_44 (CZ2), Haley23_44 (CZ2), JCole_42 (CZ2), Jalleen_44 (CZ2), Lamberg_40 (CZ2), Lucky10_38 (DH), MakCheese_55 (DW), Matteo_37 (CZ2), Mocha12_44 (CZ2), Nettuno_40 (CZ2), ODay_55 (DN), Oregano_44 (CZ4), Periwinkle_58 (DN1), Pollux_44 (CY1), Sahara_43 (CZ2), Savage_44 (CZ2), ShawBrad_54 (DN1), Sprinklemunch_50 (DW), Sproutie_44 (CZ2), Suerte_40 (CZ4), Toron_43 (F6), TuertoX_44 (CZ2), Vasanti_41 (CZ2), Whiteclaw_44 (CZ2), WinkNick_45 (CZ4), Wrigley_49 (CY4), Yinzer_44 (CZ2), Zodiariah_42 (DW),

Start 19:

- Found in 3 of 55 (5.5%) of genes in pham
- Manual Annotations of this start: 3 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mask_49 (AD), Tortellini_37 (P2), Xavia_39 (P3),

Start 21:

- Found in 28 of 55 (50.9%) of genes in pham
- Manual Annotations of this start: 6 of 50
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Asapag_52 (DN1), Birdsong_52 (DN), BotCity_54 (DN), Horus_54 (DN1), Moosehead_40 (CZ6), Phabuloso_53 (DN1),

Start 23:

- Found in 1 of 55 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BritBrat_40 (CY2),

Summary by clusters:

There are 16 clusters represented in this pham: DN, P2, CY2, AD, F6, CY4, CZ2, P3, CZ1, CZ6, CY1, CZ4, DN1, DH, CY5, DW,

Info for manual annotations of cluster AD:

- Start number 8 was manually annotated 1 time for cluster AD.
- Start number 19 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster CY1:

- Start number 14 was manually annotated 2 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 23 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY4:

- Start number 14 was manually annotated 1 time for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 10 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CZ1:

- Start number 14 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 14 was manually annotated 18 times for cluster CZ2.

Info for manual annotations of cluster CZ4:

- Start number 14 was manually annotated 6 times for cluster CZ4.

Info for manual annotations of cluster CZ6:

- Start number 21 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DH:

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

Info for manual annotations of cluster DN:

- Start number 14 was manually annotated 1 time for cluster DN.
- Start number 21 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 7 was manually annotated 2 times for cluster DN1.
- Start number 10 was manually annotated 1 time for cluster DN1.
- Start number 13 was manually annotated 1 time for cluster DN1.
- Start number 14 was manually annotated 3 times for cluster DN1.
- Start number 21 was manually annotated 3 times for cluster DN1.

Info for manual annotations of cluster DW:

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

Info for manual annotations of cluster P2:

- Start number 19 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 19 was manually annotated 1 time for cluster P3.

Gene Information:

Gene: Annalisa_41 Start: 32062, Stop: 31457, Start Num: 14

Candidate Starts for Annalisa_41:

(5, 32149), (Start: 14 @32062 has 34 MA's), (20, 32026), (53, 31714), (60, 31669), (67, 31585), (75, 31504), (78, 31489),

Gene: Asapag_52 Start: 35508, Stop: 34891, Start Num: 21

Candidate Starts for Asapag_52:

(17, 35526), (Start: 21 @35508 has 6 MA's), (22, 35499), (26, 35472), (39, 35340), (57, 35196), (68, 35073),

Gene: BeeGee_48 Start: 35749, Stop: 35042, Start Num: 10

Candidate Starts for BeeGee_48:

(Start: 10 @35749 has 2 MA's), (Start: 13 @35740 has 1 MA's), (18, 35704), (33, 35581), (36, 35539), (40, 35506), (50, 35404), (54, 35386), (68, 35266), (70, 35230), (71, 35227), (81, 35149),

Gene: Birdsong_52 Start: 35729, Stop: 35112, Start Num: 21

Candidate Starts for Birdsong_52:

(17, 35747), (Start: 21 @35729 has 6 MA's), (22, 35720), (26, 35693), (39, 35561), (57, 35417), (68, 35294),

Gene: Bjaner7_41 Start: 31912, Stop: 31289, Start Num: 14

Candidate Starts for Bjaner7_41:

(Start: 14 @31912 has 34 MA's), (Start: 21 @31873 has 6 MA's), (28, 31816), (53, 31564), (60, 31519), (68, 31435),

Gene: Bosnia_46 Start: 38276, Stop: 37653, Start Num: 14

Candidate Starts for Bosnia_46:

(Start: 14 @38276 has 34 MA's), (28, 38180), (53, 37928), (60, 37883), (64, 37808), (68, 37799),

Gene: BotCity_54 Start: 36275, Stop: 35658, Start Num: 21

Candidate Starts for BotCity_54:

(17, 36293), (Start: 21 @36275 has 6 MA's), (31, 36191), (39, 36107), (61, 35861), (68, 35840),

Gene: BritBrat_40 Start: 34130, Stop: 33591, Start Num: 23

Candidate Starts for BritBrat_40:

(1, 34370), (2, 34313), (3, 34304), (4, 34301), (6, 34259), (9, 34217), (Start: 23 @34130 has 1 MA's), (30, 34067), (60, 33767), (68, 33683),

Gene: Clap_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Clap_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Cynthia_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Cynthia_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Dolores_44 Start: 33141, Stop: 32515, Start Num: 14

Candidate Starts for Dolores_44:

(5, 33228), (Start: 14 @33141 has 34 MA's), (20, 33105), (53, 32793), (60, 32748), (67, 32664), (78, 32568),

Gene: Dori_48 Start: 44088, Stop: 43438, Start Num: 8

Candidate Starts for Dori_48:

(Start: 8 @44088 has 1 MA's), (11, 44073), (Start: 14 @44064 has 34 MA's), (16, 44049), (Start: 21 @44025 has 6 MA's), (27, 43980), (35, 43881), (53, 43716), (56, 43701), (59, 43686), (61, 43602), (72, 43536),

Gene: Easley_40 Start: 31673, Stop: 31053, Start Num: 14

Candidate Starts for Easley_40:

(Start: 14 @31673 has 34 MA's), (28, 31577), (53, 31325), (60, 31280), (68, 31196), (87, 31076),

Gene: Ebert_46 Start: 32015, Stop: 31392, Start Num: 14

Candidate Starts for Ebert_46:

(Start: 14 @32015 has 34 MA's), (Start: 21 @31976 has 6 MA's), (28, 31919), (53, 31667), (60, 31622), (68, 31538),

Gene: Floral_42 Start: 35946, Stop: 35323, Start Num: 14

Candidate Starts for Floral_42:

(Start: 14 @35946 has 34 MA's), (Start: 21 @35907 has 6 MA's), (28, 35850), (53, 35598), (60, 35553), (68, 35469),

Gene: GemG_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for GemG_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Getalong_55 Start: 37531, Stop: 36980, Start Num: 14

Candidate Starts for Getalong_55:

(5, 37618), (Start: 14 @37531 has 34 MA's), (20, 37495), (32, 37396), (53, 37183), (60, 37138), (65, 37060),

Gene: Gizermo_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Gizermo_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Haley23_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Haley23_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Horus_54 Start: 36955, Stop: 36323, Start Num: 21

Candidate Starts for Horus_54:

(Start: 21 @36955 has 6 MA's), (24, 36922), (29, 36883), (38, 36781), (42, 36754), (43, 36748), (44, 36724), (49, 36658), (58, 36613), (68, 36508), (77, 36418),

Gene: JCole_42 Start: 31109, Stop: 30486, Start Num: 14

Candidate Starts for JCole_42:

(Start: 14 @31109 has 34 MA's), (28, 31013), (53, 30761), (60, 30716), (68, 30632),

Gene: Jalleen_44 Start: 31730, Stop: 31107, Start Num: 14

Candidate Starts for Jalleen_44:

(Start: 14 @31730 has 34 MA's), (Start: 21 @31691 has 6 MA's), (28, 31634), (53, 31382), (60, 31337), (68, 31253),

Gene: Kamaru_49 Start: 35377, Stop: 34655, Start Num: 7

Candidate Starts for Kamaru_49:

(Start: 7 @35377 has 2 MA's), (Start: 10 @35338 has 2 MA's), (Start: 13 @35329 has 1 MA's), (15, 35323), (18, 35293), (37, 35125), (40, 35095), (41, 35086), (48, 34999), (51, 34987), (53, 34975), (61, 34858), (68, 34837),

Gene: Kenna_55 Start: 36730, Stop: 36059, Start Num: 10

Candidate Starts for Kenna_55:

(Start: 10 @36730 has 2 MA's), (Start: 13 @36721 has 1 MA's), (18, 36685), (33, 36562), (36, 36520), (40, 36487), (54, 36367), (68, 36247),

Gene: Lamberg_40 Start: 30600, Stop: 29977, Start Num: 14

Candidate Starts for Lamberg_40:

(Start: 14 @30600 has 34 MA's), (Start: 21 @30561 has 6 MA's), (28, 30504), (53, 30252), (60, 30207), (68, 30123),

Gene: LitninMcQueen_48 Start: 35126, Stop: 34404, Start Num: 7

Candidate Starts for LitninMcQueen_48:

(Start: 7 @35126 has 2 MA's), (Start: 10 @35087 has 2 MA's), (Start: 13 @35078 has 1 MA's), (15, 35072), (18, 35042), (37, 34874), (40, 34844), (41, 34835), (48, 34748), (51, 34736), (53, 34724), (61, 34607), (68, 34586),

Gene: Lucky10_38 Start: 30583, Stop: 29993, Start Num: 14

Candidate Starts for Lucky10_38:

(Start: 14 @30583 has 34 MA's), (25, 30514), (28, 30487), (32, 30448), (53, 30235), (60, 30190), (66, 30109), (68, 30100),

Gene: Lutum_56 Start: 36721, Stop: 36059, Start Num: 13

Candidate Starts for Lutum_56:

(Start: 10 @36730 has 2 MA's), (Start: 13 @36721 has 1 MA's), (18, 36685), (33, 36562), (36, 36520), (40, 36487), (54, 36367), (68, 36247),

Gene: MakCheese_55 Start: 39149, Stop: 38517, Start Num: 14

Candidate Starts for MakCheese_55:

(Start: 14 @39149 has 34 MA's), (28, 39053), (53, 38801), (60, 38756), (83, 38573), (89, 38522),

Gene: Mask_49 Start: 45210, Stop: 44614, Start Num: 19

Candidate Starts for Mask_49:

(Start: 19 @45210 has 3 MA's), (28, 45147), (46, 44946), (47, 44934), (53, 44892), (61, 44778), (75, 44676),

Gene: Matteo_37 Start: 29642, Stop: 29019, Start Num: 14

Candidate Starts for Matteo_37:

(Start: 14 @29642 has 34 MA's), (Start: 21 @29603 has 6 MA's), (28, 29546), (53, 29294), (60, 29249), (68, 29165),

Gene: Mocha12_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Mocha12_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Moosehead_40 Start: 28758, Stop: 28216, Start Num: 21

Candidate Starts for Moosehead_40:

(17, 28776), (Start: 21 @28758 has 6 MA's), (31, 28674), (39, 28590), (68, 28344), (79, 28263), (82, 28248),

Gene: Nettuno_40 Start: 30600, Stop: 29977, Start Num: 14

Candidate Starts for Nettuno_40:

(Start: 14 @30600 has 34 MA's), (Start: 21 @30561 has 6 MA's), (28, 30504), (53, 30252), (60, 30207), (68, 30123),

Gene: ODay_55 Start: 36421, Stop: 35705, Start Num: 14

Candidate Starts for ODay_55:

(Start: 14 @36421 has 34 MA's), (20, 36385), (32, 36286), (53, 36073), (60, 36028), (68, 35938), (69, 35914), (84, 35815), (86, 35806), (90, 35761),

Gene: Oregano_44 Start: 32695, Stop: 32090, Start Num: 14

Candidate Starts for Oregano_44:

(5, 32782), (Start: 14 @32695 has 34 MA's), (20, 32659), (53, 32347), (60, 32302), (67, 32218), (75, 32137), (78, 32122),

Gene: Periwinkle_58 Start: 36818, Stop: 36267, Start Num: 14

Candidate Starts for Periwinkle_58:

(5, 36905), (Start: 14 @36818 has 34 MA's), (20, 36782), (53, 36470), (60, 36425), (65, 36347), (73, 36293),

Gene: Phabuloso_53 Start: 36106, Stop: 35489, Start Num: 21

Candidate Starts for Phabuloso_53:

(17, 36124), (Start: 21 @36106 has 6 MA's), (22, 36097), (26, 36070), (39, 35938), (57, 35794), (68, 35671),

Gene: Pollux_44 Start: 35946, Stop: 35323, Start Num: 14

Candidate Starts for Pollux_44:

(Start: 14 @35946 has 34 MA's), (Start: 21 @35907 has 6 MA's), (28, 35850), (53, 35598), (60, 35553), (68, 35469),

Gene: Sahara_43 Start: 31838, Stop: 31215, Start Num: 14

Candidate Starts for Sahara_43:

(Start: 14 @31838 has 34 MA's), (Start: 21 @31799 has 6 MA's), (28, 31742), (53, 31490), (60, 31445), (68, 31361),

Gene: Savage_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Savage_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: ShawBrad_54 Start: 34806, Stop: 34090, Start Num: 14

Candidate Starts for ShawBrad_54:

(Start: 14 @34806 has 34 MA's), (20, 34770), (32, 34671), (53, 34458), (60, 34413), (68, 34323), (69, 34299), (84, 34200), (86, 34191), (88, 34176), (90, 34146), (91, 34134),

Gene: Sprinklemunch_50 Start: 37971, Stop: 37237, Start Num: 14

Candidate Starts for Sprinklemunch_50:

(Start: 14 @37971 has 34 MA's), (28, 37875), (53, 37623), (60, 37578), (63, 37506), (76, 37422),

Gene: Sproutie_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Sproutie_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Suerte_40 Start: 32240, Stop: 31662, Start Num: 14

Candidate Starts for Suerte_40:

(Start: 14 @32240 has 34 MA's), (28, 32144), (53, 31892), (60, 31847), (78, 31694), (85, 31667),

Gene: Toron_43 Start: 34837, Stop: 34274, Start Num: 14

Candidate Starts for Toron_43:

(5, 34924), (12, 34843), (Start: 14 @34837 has 34 MA's), (Start: 21 @34798 has 6 MA's), (27, 34753), (34, 34687), (45, 34549), (52, 34498), (55, 34486), (60, 34444), (62, 34372),

Gene: Tortellini_37 Start: 33401, Stop: 32802, Start Num: 19

Candidate Starts for Tortellini_37:

(Start: 19 @33401 has 3 MA's), (28, 33338), (46, 33137), (47, 33125), (53, 33083), (61, 32969), (72, 32903), (75, 32867),

Gene: TuertoX_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for TuertoX_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Vasanti_41 Start: 31106, Stop: 30483, Start Num: 14

Candidate Starts for Vasanti_41:

(Start: 14 @31106 has 34 MA's), (28, 31010), (53, 30758), (60, 30713), (68, 30629),

Gene: Whiteclaw_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Whiteclaw_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: WinkNick_45 Start: 33064, Stop: 32438, Start Num: 14

Candidate Starts for WinkNick_45:

(5, 33151), (Start: 14 @33064 has 34 MA's), (20, 33028), (53, 32716), (60, 32671), (67, 32587), (78, 32491),

Gene: Wrigley_49 Start: 35786, Stop: 35133, Start Num: 14

Candidate Starts for Wrigley_49:

(Start: 14 @35786 has 34 MA's), (28, 35690), (53, 35438), (60, 35393), (74, 35237),

Gene: Xavia_39 Start: 33984, Stop: 33406, Start Num: 19

Candidate Starts for Xavia_39:

(Start: 19 @33984 has 3 MA's), (28, 33921), (46, 33720), (47, 33708), (53, 33666), (61, 33552), (72, 33486), (75, 33450), (80, 33426),

Gene: Yinzer_44 Start: 32091, Stop: 31468, Start Num: 14

Candidate Starts for Yinzer_44:

(Start: 14 @32091 has 34 MA's), (Start: 21 @32052 has 6 MA's), (28, 31995), (53, 31743), (60, 31698), (68, 31614),

Gene: Zodiariah_42 Start: 36174, Stop: 35443, Start Num: 14

Candidate Starts for Zodiariah_42:

(Start: 14 @36174 has 34 MA's), (28, 36078), (53, 35826), (60, 35781), (63, 35709), (76, 35625), (92, 35487),