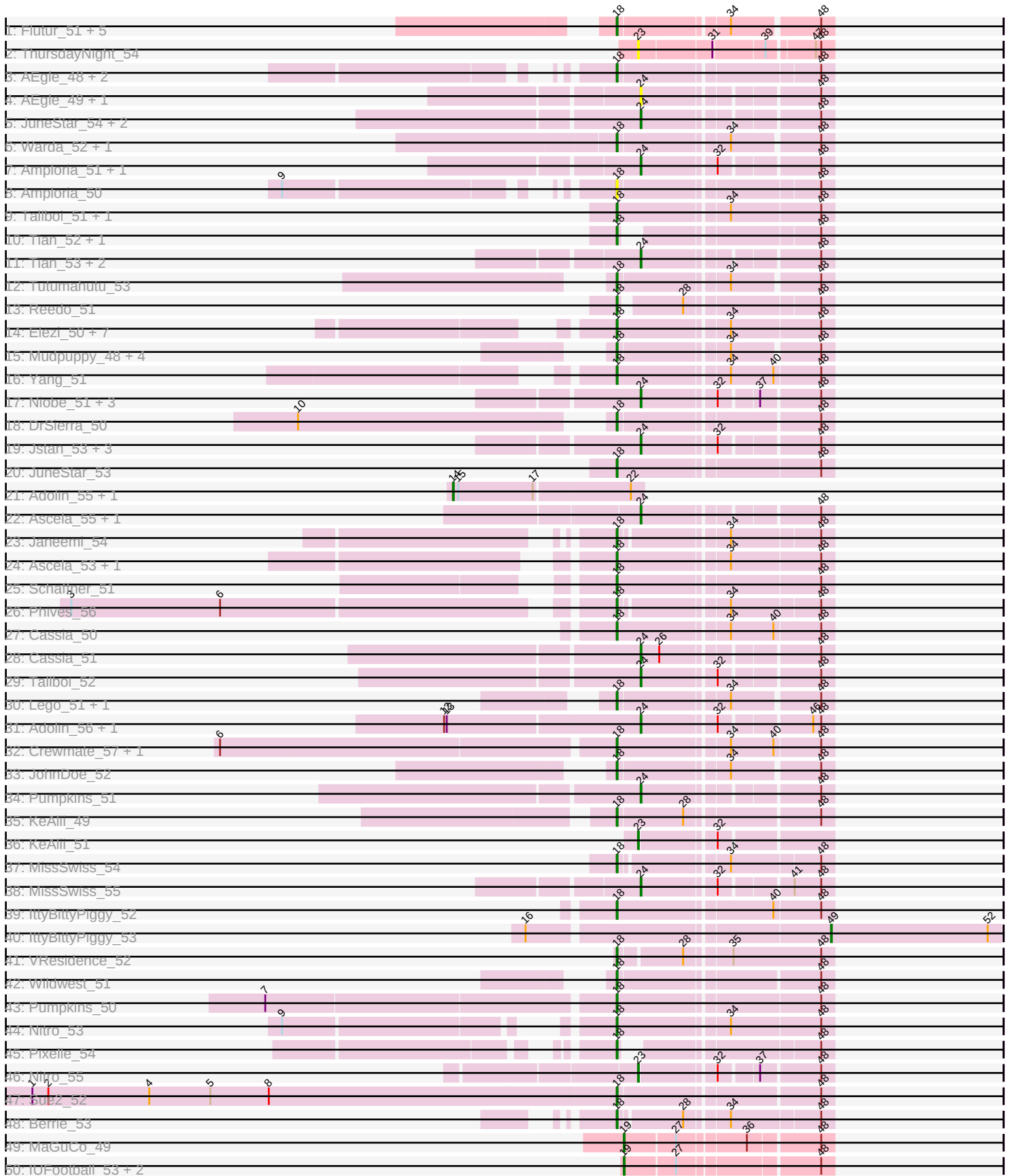
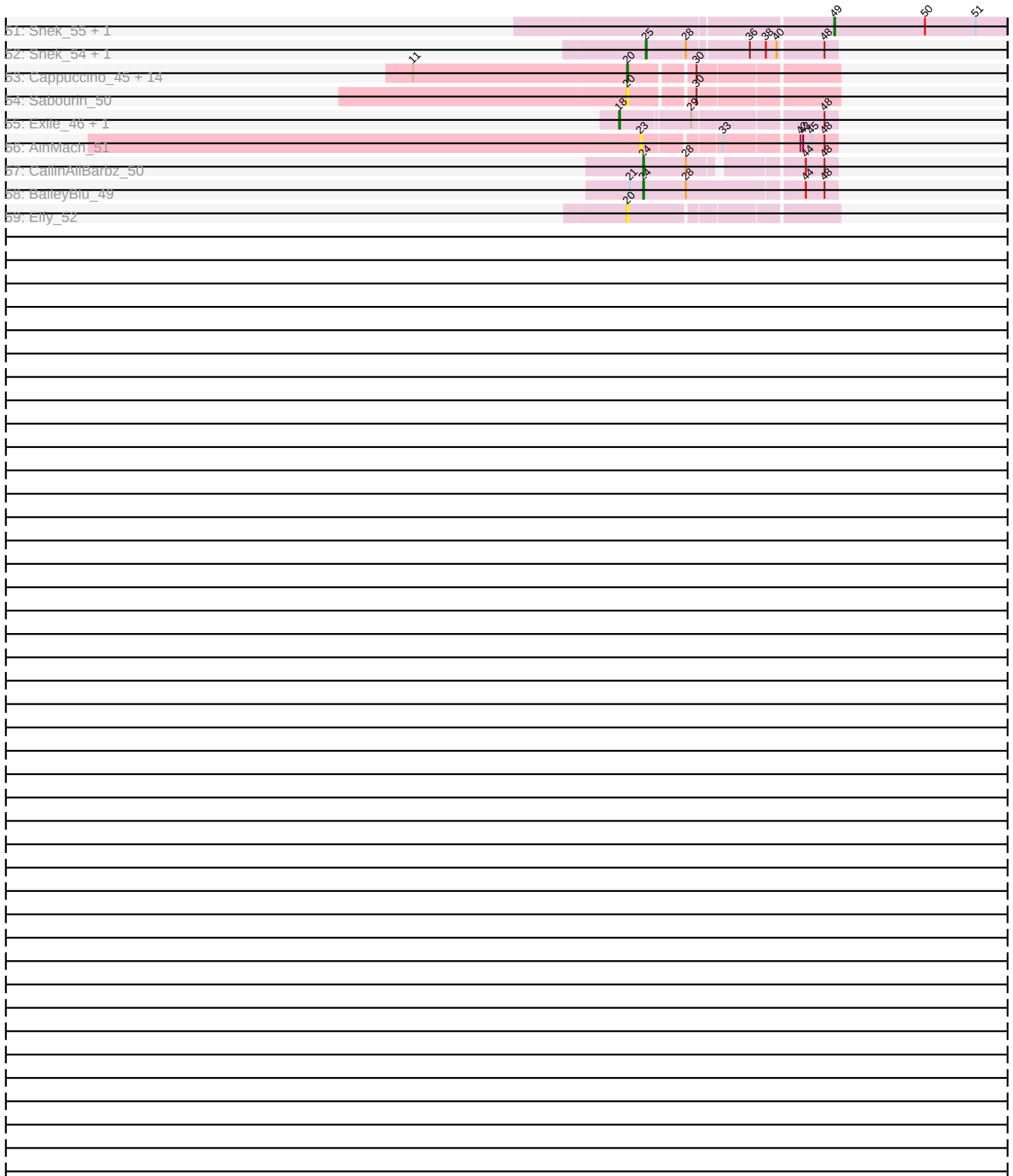




Pham 280234



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 280234 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280234 has 117 members, 24 are drafts.

Phages represented in each track:

- Track 1 : Flutur_51, Powerpuff_54, AGrandiflora_54, Joemato_52, YesChef_52, Simpson_54
- Track 2 : ThursdayNight_54
- Track 3 : AEgle_48, Turab_49, Adumb2043_49
- Track 4 : AEgle_49, Turab_50
- Track 5 : JuneStar_54, Yang_52, TforTroy_53
- Track 6 : Warda_52, Tbone_52
- Track 7 : Amploria_51, Adumb2043_50
- Track 8 : Amploria_50
- Track 9 : Tallboi_51, TforTroy_52
- Track 10 : Tian_52, Amyev_53
- Track 11 : Tian_53, Amyev_54, Pixelle_55
- Track 12 : Tutumahutu_53
- Track 13 : Reedo_51
- Track 14 : Elezi_50, Niobe_50, Skelbel_51, Asa16_50, Subaru_51, Jstan_52, Eraser_50, London_50
- Track 15 : Mudpuppy_48, Community_55, Cyan_52, Tuck_55, Lizalica_51
- Track 16 : Yang_51
- Track 17 : Niobe_51, Skelbel_52, Asa16_51, London_51
- Track 18 : DrSierra_50
- Track 19 : Jstan_53, Subaru_52, Elezi_51, Eraser_51
- Track 20 : JuneStar_53
- Track 21 : Adolin_55, DrManhattan_54
- Track 22 : Ascela_55, lter_55
- Track 23 : Janeemi_54
- Track 24 : Ascela_53, lter_53
- Track 25 : Schaffner_51
- Track 26 : Phives_56
- Track 27 : Cassia_50
- Track 28 : Cassia_51
- Track 29 : Tallboi_52
- Track 30 : Lego_51, Kaylissa_53
- Track 31 : Adolin_56, DrManhattan_55
- Track 32 : Crewmate_57, ObiToo_56
- Track 33 : JohnDoe_52
- Track 34 : Pumpkins_51
- Track 35 : KeAlii_49

- Track 36 : KeAlii_51
- Track 37 : MissSwiss_54
- Track 38 : MissSwiss_55
- Track 39 : IttyBittyPiggy_52
- Track 40 : IttyBittyPiggy_53
- Track 41 : VResidence_52
- Track 42 : Wildwest_51
- Track 43 : Pumpkins_50
- Track 44 : Nitro_53
- Track 45 : Pixelle_54
- Track 46 : Nitro_55
- Track 47 : Sue2_52
- Track 48 : Berrie_53
- Track 49 : MaGuCo_49
- Track 50 : IUFootball_53, Liebe_53, Maureen_53
- Track 51 : Snek_55, Tweety19_56
- Track 52 : Snek_54, Tweety19_55
- Track 53 : Cappuccino_45, Kalimba_45, Giorgio_44, Gambol_46, Moss_45, Gumpizza_44, Sooty_45, Ashes_45, SpecialK_45, Halsey_45, Donkey_45, RockScotty_44, Mysterium_44, Beaupre_44, Stuu_45
- Track 54 : Sabourin_50
- Track 55 : Exile_46, Soondubu_48
- Track 56 : AinMach_51
- Track 57 : CallinAllBarbz_50
- Track 58 : BaileyBlu_49
- Track 59 : Elfy_52

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

The start number called the most often in the published annotations is 18, it was called in 45 of the 93 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AEgle_48, AGrandiflora_54, Adumb2043_49, Amploria_50, Amyev_53, Asa16_50, Ascela_53, Berrie_53, Cassia_50, Community_55, Crewmate_57, Cyan_52, DrSierra_50, Elezi_50, Eraser_50, Exile_46, Flutur_51, Iter_53, IttyBittyPiggy_52, Janeemi_54, Joemato_52, JohnDoe_52, Jstan_52, JuneStar_53, Kaylissa_53, KeAlii_49, Lego_51, Lizalica_51, London_50, MissSwiss_54, Mudpuppy_48, Niobe_50, Nitro_53, ObiToo_56, Phives_56, Pixelle_54, Powerpuff_54, Pumpkins_50, Reedo_51, Schaffner_51, Simpson_54, Skelbel_51, Soondubu_48, Subaru_51, Sue2_52, Tallboi_51, Tbone_52, TforTroy_52, Tian_52, Tuck_55, Turab_49, Tutumahutu_53, VResidence_52, Warda_52, Wildwest_51, Yang_51, YesChef_52,

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

•

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

• AEgle_49, Adolin_55, Adolin_56, Adumb2043_50, AinMach_51, Amploria_51, Amyev_54, Asa16_51, Ascela_55, Ashes_45, BaileyBlu_49, Beaupre_44,

CallinAllBarbz_50, Cappuccino_45, Cassia_51, Donkey_45, DrManhattan_54, DrManhattan_55, Elezi_51, Elfy_52, Eraser_51, Gambol_46, Giorgio_44, Gumpizza_44, Halsey_45, IUFootball_53, Iter_55, IttyBittyPiggy_53, Jstan_53, JuneStar_54, Kalimba_45, KeAlii_51, Liebe_53, London_51, MaGuCo_49, Maureen_53, MissSwiss_55, Moss_45, Mysterium_44, Niobe_51, Nitro_55, Pixelle_55, Pumpkins_51, RockScotty_44, Sabourin_50, Skelbel_52, Snek_54, Snek_55, Sooty_45, SpecialK_45, Stuu_45, Subaru_52, Tallboi_52, TforTroy_53, ThursdayNight_54, Tian_53, Turab_50, Tweety19_55, Tweety19_56, Yang_52,

Summary by start number:

Start 14:

- Found in 2 of 117 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin_55 (AZ1), DrManhattan_54 (AZ1),

Start 18:

- Found in 57 of 117 (48.7%) of genes in pham
- Manual Annotations of this start: 45 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle_48 (AZ1), AGrandiflora_54 (AZ1), Adumb2043_49 (AZ1), Amploria_50 (AZ1), Amyev_53 (AZ1), Asa16_50 (AZ1), Ascela_53 (AZ1), Berrie_53 (AZ1), Cassia_50 (AZ1), Community_55 (AZ1), Crewmate_57 (AZ1), Cyan_52 (AZ1), DrSierra_50 (AZ1), Elezi_50 (AZ1), Eraser_50 (AZ1), Exile_46 (AZ6), Flutur_51 (AZ), Iter_53 (AZ1), IttyBittyPiggy_52 (AZ1), Janeemi_54 (AZ1), Joemato_52 (AZ1), JohnDoe_52 (AZ1), Jstan_52 (AZ1), JuneStar_53 (AZ1), Kaylissa_53 (AZ1), KeAlii_49 (AZ1), Lego_51 (AZ1), Lizalica_51 (AZ1), London_50 (AZ1), MissSwiss_54 (AZ1), Mudpuppy_48 (AZ1), Niobe_50 (AZ1), Nitro_53 (AZ1), ObiToo_56 (AZ1), Phives_56 (AZ1), Pixelle_54 (AZ1), Powerpuff_54 (AZ1), Pumpkins_50 (AZ1), Reedo_51 (AZ1), Schaffner_51 (AZ1), Simpson_54 (AZ1), Skelbel_51 (AZ1), Soondubu_48 (AZ6), Subaru_51 (AZ1), Sue2_52 (AZ1), Tallboi_51 (AZ1), Tbone_52 (AZ1), TforTroy_52 (AZ1), Tian_52 (AZ1), Tuck_55 (AZ1), Turab_49 (AZ1), Tutumahutu_53 (AZ1), VResidence_52 (AZ1), Warda_52 (AZ1), Wildwest_51 (AZ1), Yang_51 (AZ1), YesChef_52 (AZ1),

Start 19:

- Found in 4 of 117 (3.4%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IUFootball_53 (AZ2), Liebe_53 (AZ2), MaGuCo_49 (AZ2), Maureen_53 (AZ2),

Start 20:

- Found in 17 of 117 (14.5%) of genes in pham
- Manual Annotations of this start: 15 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ashes_45 (AZ5), Beaupre_44 (AZ5), Cappuccino_45 (AZ5), Donkey_45 (AZ5), Elfy_52 (FP), Gambol_46 (AZ5), Giorgio_44 (AZ5), Gumpizza_44 (AZ5), Halsey_45 (AZ5), Kalimba_45 (AZ5), Moss_45 (AZ5), Mysterium_44 (AZ5), RockScotty_44 (AZ5), Sabourin_50 (AZ5), Sooty_45 (AZ5), SpecialK_45 (AZ5), Stuu_45 (AZ5),

Start 23:

- Found in 4 of 117 (3.4%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AinMach_51 (AZ7), KeAlii_51 (AZ1), Nitro_55 (AZ1), ThursdayNight_54 (AZ),

Start 24:

- Found in 28 of 117 (23.9%) of genes in pham
- Manual Annotations of this start: 21 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle_49 (AZ1), Adolin_56 (AZ1), Adumb2043_50 (AZ1), Amploria_51 (AZ1), Amyev_54 (AZ1), Asa16_51 (AZ1), Ascela_55 (AZ1), BaileyBlu_49 (FP), CallinAllBarbz_50 (FP), Cassia_51 (AZ1), DrManhattan_55 (AZ1), Elezi_51 (AZ1), Eraser_51 (AZ1), Iter_55 (AZ1), Jstan_53 (AZ1), JuneStar_54 (AZ1), London_51 (AZ1), MissSwiss_55 (AZ1), Niobe_51 (AZ1), Pixelle_55 (AZ1), Pumpkins_51 (AZ1), Skelbel_52 (AZ1), Subaru_52 (AZ1), Tallboi_52 (AZ1), TforTroy_53 (AZ1), Tian_53 (AZ1), Turab_50 (AZ1), Yang_52 (AZ1),

Start 25:

- Found in 2 of 117 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Snek_54 (AZ3), Tweety19_55 (AZ3),

Start 49:

- Found in 3 of 117 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IttyBittyPiggy_53 (AZ1), Snek_55 (AZ3), Tweety19_56 (AZ3),

Summary by clusters:

There are 8 clusters represented in this pham: FP, AZ, AZ1, AZ2, AZ3, AZ5, AZ6, AZ7,

Info for manual annotations of cluster AZ1:

- Start number 14 was manually annotated 2 times for cluster AZ1.
- Start number 18 was manually annotated 44 times for cluster AZ1.
- Start number 23 was manually annotated 2 times for cluster AZ1.
- Start number 24 was manually annotated 19 times for cluster AZ1.
- Start number 49 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 19 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 25 was manually annotated 2 times for cluster AZ3.
- Start number 49 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ5:

- Start number 20 was manually annotated 15 times for cluster AZ5.

Info for manual annotations of cluster AZ6:

- Start number 18 was manually annotated 1 time for cluster AZ6.

Info for manual annotations of cluster FP:

- Start number 24 was manually annotated 2 times for cluster FP.

Gene Information:

Gene: AEgle_48 Start: 36313, Stop: 36537, Start Num: 18

Candidate Starts for AEgle_48:

(Start: 18 @36313 has 45 MA's), (48, 36523),

Gene: AEgle_49 Start: 36534, Stop: 36725, Start Num: 24

Candidate Starts for AEgle_49:

(Start: 24 @36534 has 21 MA's), (48, 36711),

Gene: AGrandiflora_54 Start: 37650, Stop: 37871, Start Num: 18

Candidate Starts for AGrandiflora_54:

(Start: 18 @37650 has 45 MA's), (34, 37764), (48, 37857),

Gene: Adolin_55 Start: 36749, Stop: 36955, Start Num: 14

Candidate Starts for Adolin_55:

(Start: 14 @36749 has 2 MA's), (15, 36755), (17, 36839), (22, 36941),

Gene: Adolin_56 Start: 36952, Stop: 37143, Start Num: 24

Candidate Starts for Adolin_56:

(12, 36739), (13, 36742), (Start: 24 @36952 has 21 MA's), (32, 37027), (46, 37120), (48, 37129),

Gene: Adumb2043_50 Start: 36555, Stop: 36746, Start Num: 24

Candidate Starts for Adumb2043_50:

(Start: 24 @36555 has 21 MA's), (32, 36630), (48, 36732),

Gene: Adumb2043_49 Start: 36334, Stop: 36558, Start Num: 18

Candidate Starts for Adumb2043_49:

(Start: 18 @36334 has 45 MA's), (48, 36544),

Gene: AinMach_51 Start: 36840, Stop: 37037, Start Num: 23

Candidate Starts for AinMach_51:

(Start: 23 @36840 has 2 MA's), (33, 36918), (42, 36996), (43, 36999), (45, 37008), (48, 37023),

Gene: Amploria_51 Start: 36738, Stop: 36929, Start Num: 24

Candidate Starts for Amploria_51:

(Start: 24 @36738 has 21 MA's), (32, 36813), (48, 36915),

Gene: Amploria_50 Start: 36517, Stop: 36741, Start Num: 18

Candidate Starts for Amploria_50:

(9, 36217), (Start: 18 @36517 has 45 MA's), (48, 36727),

Gene: Amyev_54 Start: 39992, Stop: 40183, Start Num: 24

Candidate Starts for Amyev_54:

(Start: 24 @39992 has 21 MA's), (48, 40169),

Gene: Amyev_53 Start: 39795, Stop: 39995, Start Num: 18

Candidate Starts for Amyev_53:

(Start: 18 @39795 has 45 MA's), (48, 39981),

Gene: Asa16_51 Start: 38109, Stop: 38300, Start Num: 24

Candidate Starts for Asa16_51:

(Start: 24 @38109 has 21 MA's), (32, 38184), (37, 38223), (48, 38286),

Gene: Asa16_50 Start: 37882, Stop: 38112, Start Num: 18

Candidate Starts for Asa16_50:

(Start: 18 @37882 has 45 MA's), (34, 37999), (48, 38098),

Gene: Ascela_55 Start: 38387, Stop: 38578, Start Num: 24

Candidate Starts for Ascela_55:

(Start: 24 @38387 has 21 MA's), (48, 38564),

Gene: Ascela_53 Start: 37957, Stop: 38187, Start Num: 18

Candidate Starts for Ascela_53:

(Start: 18 @37957 has 45 MA's), (34, 38074), (48, 38173),

Gene: Ashes_45 Start: 33455, Stop: 33667, Start Num: 20

Candidate Starts for Ashes_45:

(11, 33218), (Start: 20 @33455 has 15 MA's), (30, 33521),

Gene: BaileyBlu_49 Start: 35978, Stop: 36187, Start Num: 24

Candidate Starts for BaileyBlu_49:

(21, 35963), (Start: 24 @35978 has 21 MA's), (28, 36026), (44, 36152), (48, 36173),

Gene: Beaupre_44 Start: 33265, Stop: 33477, Start Num: 20

Candidate Starts for Beaupre_44:

(11, 33028), (Start: 20 @33265 has 15 MA's), (30, 33331),

Gene: Berrie_53 Start: 38048, Stop: 38266, Start Num: 18

Candidate Starts for Berrie_53:

(Start: 18 @38048 has 45 MA's), (28, 38114), (34, 38156), (48, 38252),

Gene: CallinAllBarbz_50 Start: 36450, Stop: 36644, Start Num: 24

Candidate Starts for CallinAllBarbz_50:

(Start: 24 @36450 has 21 MA's), (28, 36498), (44, 36609), (48, 36630),

Gene: Cappuccino_45 Start: 33320, Stop: 33532, Start Num: 20

Candidate Starts for Cappuccino_45:

(11, 33083), (Start: 20 @33320 has 15 MA's), (30, 33386),

Gene: Cassia_50 Start: 37073, Stop: 37303, Start Num: 18

Candidate Starts for Cassia_50:

(Start: 18 @37073 has 45 MA's), (34, 37190), (40, 37238), (48, 37289),

Gene: Cassia_51 Start: 37300, Stop: 37491, Start Num: 24

Candidate Starts for Cassia_51:

(Start: 24 @37300 has 21 MA's), (26, 37321), (48, 37477),

Gene: Community_55 Start: 39440, Stop: 39658, Start Num: 18

Candidate Starts for Community_55:

(Start: 18 @39440 has 45 MA's), (34, 39548), (48, 39644),

Gene: Crewmate_57 Start: 38837, Stop: 39067, Start Num: 18

Candidate Starts for Crewmate_57:

(6, 38405), (Start: 18 @38837 has 45 MA's), (34, 38954), (40, 39002), (48, 39053),

Gene: Cyan_52 Start: 37207, Stop: 37428, Start Num: 18

Candidate Starts for Cyan_52:

(Start: 18 @37207 has 45 MA's), (34, 37321), (48, 37414),

Gene: Donkey_45 Start: 33310, Stop: 33522, Start Num: 20

Candidate Starts for Donkey_45:

(11, 33073), (Start: 20 @33310 has 15 MA's), (30, 33376),

Gene: DrManhattan_55 Start: 36520, Stop: 36711, Start Num: 24

Candidate Starts for DrManhattan_55:

(12, 36307), (13, 36310), (Start: 24 @36520 has 21 MA's), (32, 36595), (46, 36688), (48, 36697),

Gene: DrManhattan_54 Start: 36317, Stop: 36523, Start Num: 14

Candidate Starts for DrManhattan_54:

(Start: 14 @36317 has 2 MA's), (15, 36323), (17, 36407), (22, 36509),

Gene: DrSierra_50 Start: 36034, Stop: 36258, Start Num: 18

Candidate Starts for DrSierra_50:

(10, 35728), (Start: 18 @36034 has 45 MA's), (48, 36244),

Gene: Elezi_50 Start: 37880, Stop: 38110, Start Num: 18

Candidate Starts for Elezi_50:

(Start: 18 @37880 has 45 MA's), (34, 37997), (48, 38096),

Gene: Elezi_51 Start: 38107, Stop: 38298, Start Num: 24

Candidate Starts for Elezi_51:

(Start: 24 @38107 has 21 MA's), (32, 38182), (48, 38284),

Gene: Elfy_52 Start: 35591, Stop: 35809, Start Num: 20

Candidate Starts for Elfy_52:

(Start: 20 @35591 has 15 MA's),

Gene: Eraser_51 Start: 38116, Stop: 38307, Start Num: 24

Candidate Starts for Eraser_51:

(Start: 24 @38116 has 21 MA's), (32, 38191), (48, 38293),

Gene: Eraser_50 Start: 37889, Stop: 38119, Start Num: 18

Candidate Starts for Eraser_50:

(Start: 18 @37889 has 45 MA's), (34, 38006), (48, 38105),

Gene: Exile_46 Start: 39253, Stop: 39480, Start Num: 18
Candidate Starts for Exile_46:
(Start: 18 @39253 has 45 MA's), (29, 39328), (48, 39466),

Gene: Flutur_51 Start: 37516, Stop: 37737, Start Num: 18
Candidate Starts for Flutur_51:
(Start: 18 @37516 has 45 MA's), (34, 37630), (48, 37723),

Gene: Gambol_46 Start: 33329, Stop: 33541, Start Num: 20
Candidate Starts for Gambol_46:
(11, 33092), (Start: 20 @33329 has 15 MA's), (30, 33395),

Gene: Giorgio_44 Start: 33248, Stop: 33460, Start Num: 20
Candidate Starts for Giorgio_44:
(11, 33011), (Start: 20 @33248 has 15 MA's), (30, 33314),

Gene: Gumpizza_44 Start: 33204, Stop: 33416, Start Num: 20
Candidate Starts for Gumpizza_44:
(11, 32967), (Start: 20 @33204 has 15 MA's), (30, 33270),

Gene: Halsey_45 Start: 33457, Stop: 33669, Start Num: 20
Candidate Starts for Halsey_45:
(11, 33220), (Start: 20 @33457 has 15 MA's), (30, 33523),

Gene: IUFootball_53 Start: 39401, Stop: 39613, Start Num: 19
Candidate Starts for IUFootball_53:
(Start: 19 @39401 has 3 MA's), (27, 39455), (48, 39599),

Gene: Iter_53 Start: 37949, Stop: 38179, Start Num: 18
Candidate Starts for Iter_53:
(Start: 18 @37949 has 45 MA's), (34, 38066), (48, 38165),

Gene: Iter_55 Start: 38379, Stop: 38570, Start Num: 24
Candidate Starts for Iter_55:
(Start: 24 @38379 has 21 MA's), (48, 38556),

Gene: IttyBittyPiggy_52 Start: 36661, Stop: 36891, Start Num: 18
Candidate Starts for IttyBittyPiggy_52:
(Start: 18 @36661 has 45 MA's), (40, 36826), (48, 36877),

Gene: IttyBittyPiggy_53 Start: 36888, Stop: 37079, Start Num: 49
Candidate Starts for IttyBittyPiggy_53:
(16, 36570), (Start: 49 @36888 has 3 MA's), (52, 37065),

Gene: Janeemi_54 Start: 38904, Stop: 39122, Start Num: 18
Candidate Starts for Janeemi_54:
(Start: 18 @38904 has 45 MA's), (34, 39012), (48, 39108),

Gene: Joemato_52 Start: 37287, Stop: 37508, Start Num: 18
Candidate Starts for Joemato_52:
(Start: 18 @37287 has 45 MA's), (34, 37401), (48, 37494),

Gene: JohnDoe_52 Start: 37271, Stop: 37492, Start Num: 18

Candidate Starts for JohnDoe_52:
(Start: 18 @37271 has 45 MA's), (34, 37385), (48, 37478),

Gene: Jstan_53 Start: 38111, Stop: 38302, Start Num: 24
Candidate Starts for Jstan_53:
(Start: 24 @38111 has 21 MA's), (32, 38186), (48, 38288),

Gene: Jstan_52 Start: 37884, Stop: 38114, Start Num: 18
Candidate Starts for Jstan_52:
(Start: 18 @37884 has 45 MA's), (34, 38001), (48, 38100),

Gene: JuneStar_54 Start: 40230, Stop: 40421, Start Num: 24
Candidate Starts for JuneStar_54:
(Start: 24 @40230 has 21 MA's), (48, 40407),

Gene: JuneStar_53 Start: 40003, Stop: 40233, Start Num: 18
Candidate Starts for JuneStar_53:
(Start: 18 @40003 has 45 MA's), (48, 40219),

Gene: Kalimba_45 Start: 33307, Stop: 33519, Start Num: 20
Candidate Starts for Kalimba_45:
(11, 33070), (Start: 20 @33307 has 15 MA's), (30, 33373),

Gene: Kaylissa_53 Start: 37666, Stop: 37887, Start Num: 18
Candidate Starts for Kaylissa_53:
(Start: 18 @37666 has 45 MA's), (34, 37780), (48, 37873),

Gene: KeAlii_49 Start: 36858, Stop: 37082, Start Num: 18
Candidate Starts for KeAlii_49:
(Start: 18 @36858 has 45 MA's), (28, 36930), (48, 37068),

Gene: KeAlii_51 Start: 37294, Stop: 37488, Start Num: 23
Candidate Starts for KeAlii_51:
(Start: 23 @37294 has 2 MA's), (32, 37369),

Gene: Lego_51 Start: 36986, Stop: 37207, Start Num: 18
Candidate Starts for Lego_51:
(Start: 18 @36986 has 45 MA's), (34, 37100), (48, 37193),

Gene: Liebe_53 Start: 39401, Stop: 39613, Start Num: 19
Candidate Starts for Liebe_53:
(Start: 19 @39401 has 3 MA's), (27, 39455), (48, 39599),

Gene: Lizalica_51 Start: 36731, Stop: 36952, Start Num: 18
Candidate Starts for Lizalica_51:
(Start: 18 @36731 has 45 MA's), (34, 36845), (48, 36938),

Gene: London_50 Start: 37880, Stop: 38110, Start Num: 18
Candidate Starts for London_50:
(Start: 18 @37880 has 45 MA's), (34, 37997), (48, 38096),

Gene: London_51 Start: 38107, Stop: 38298, Start Num: 24
Candidate Starts for London_51:

(Start: 24 @38107 has 21 MA's), (32, 38182), (37, 38221), (48, 38284),

Gene: MaGuCo_49 Start: 38092, Stop: 38304, Start Num: 19

Candidate Starts for MaGuCo_49:

(Start: 19 @38092 has 3 MA's), (27, 38146), (36, 38215), (48, 38290),

Gene: Maureen_53 Start: 39400, Stop: 39612, Start Num: 19

Candidate Starts for Maureen_53:

(Start: 19 @39400 has 3 MA's), (27, 39454), (48, 39598),

Gene: MissSwiss_54 Start: 36480, Stop: 36698, Start Num: 18

Candidate Starts for MissSwiss_54:

(Start: 18 @36480 has 45 MA's), (34, 36588), (48, 36684),

Gene: MissSwiss_55 Start: 36695, Stop: 36886, Start Num: 24

Candidate Starts for MissSwiss_55:

(Start: 24 @36695 has 21 MA's), (32, 36770), (41, 36842), (48, 36872),

Gene: Moss_45 Start: 33397, Stop: 33609, Start Num: 20

Candidate Starts for Moss_45:

(11, 33160), (Start: 20 @33397 has 15 MA's), (30, 33463),

Gene: Mudpuppy_48 Start: 36915, Stop: 37136, Start Num: 18

Candidate Starts for Mudpuppy_48:

(Start: 18 @36915 has 45 MA's), (34, 37029), (48, 37122),

Gene: Mysterium_44 Start: 33230, Stop: 33442, Start Num: 20

Candidate Starts for Mysterium_44:

(11, 32993), (Start: 20 @33230 has 15 MA's), (30, 33296),

Gene: Niobe_50 Start: 37883, Stop: 38113, Start Num: 18

Candidate Starts for Niobe_50:

(Start: 18 @37883 has 45 MA's), (34, 38000), (48, 38099),

Gene: Niobe_51 Start: 38110, Stop: 38301, Start Num: 24

Candidate Starts for Niobe_51:

(Start: 24 @38110 has 21 MA's), (32, 38185), (37, 38224), (48, 38287),

Gene: Nitro_53 Start: 38988, Stop: 39218, Start Num: 18

Candidate Starts for Nitro_53:

(9, 38691), (Start: 18 @38988 has 45 MA's), (34, 39105), (48, 39204),

Gene: Nitro_55 Start: 39409, Stop: 39600, Start Num: 23

Candidate Starts for Nitro_55:

(Start: 23 @39409 has 2 MA's), (32, 39484), (37, 39523), (48, 39586),

Gene: ObiToo_56 Start: 38231, Stop: 38461, Start Num: 18

Candidate Starts for ObiToo_56:

(6, 37799), (Start: 18 @38231 has 45 MA's), (34, 38348), (40, 38396), (48, 38447),

Gene: Phives_56 Start: 39558, Stop: 39776, Start Num: 18

Candidate Starts for Phives_56:

(3, 38994), (6, 39162), (Start: 18 @39558 has 45 MA's), (34, 39666), (48, 39762),

Gene: Pixelle_54 Start: 40140, Stop: 40340, Start Num: 18
Candidate Starts for Pixelle_54:
(Start: 18 @40140 has 45 MA's), (48, 40326),

Gene: Pixelle_55 Start: 40337, Stop: 40528, Start Num: 24
Candidate Starts for Pixelle_55:
(Start: 24 @40337 has 21 MA's), (48, 40514),

Gene: Powerpuff_54 Start: 38373, Stop: 38594, Start Num: 18
Candidate Starts for Powerpuff_54:
(Start: 18 @38373 has 45 MA's), (34, 38487), (48, 38580),

Gene: Pumpkins_51 Start: 37973, Stop: 38164, Start Num: 24
Candidate Starts for Pumpkins_51:
(Start: 24 @37973 has 21 MA's), (48, 38150),

Gene: Pumpkins_50 Start: 37746, Stop: 37976, Start Num: 18
Candidate Starts for Pumpkins_50:
(7, 37368), (Start: 18 @37746 has 45 MA's), (48, 37962),

Gene: Reedo_51 Start: 35724, Stop: 35936, Start Num: 18
Candidate Starts for Reedo_51:
(Start: 18 @35724 has 45 MA's), (28, 35784), (48, 35922),

Gene: RockScotty_44 Start: 33228, Stop: 33440, Start Num: 20
Candidate Starts for RockScotty_44:
(11, 32991), (Start: 20 @33228 has 15 MA's), (30, 33294),

Gene: Sabourin_50 Start: 33308, Stop: 33520, Start Num: 20
Candidate Starts for Sabourin_50:
(Start: 20 @33308 has 15 MA's), (30, 33374),

Gene: Schaffner_51 Start: 37680, Stop: 37910, Start Num: 18
Candidate Starts for Schaffner_51:
(Start: 18 @37680 has 45 MA's), (48, 37896),

Gene: Simpson_54 Start: 37291, Stop: 37512, Start Num: 18
Candidate Starts for Simpson_54:
(Start: 18 @37291 has 45 MA's), (34, 37405), (48, 37498),

Gene: Skelbel_52 Start: 38110, Stop: 38301, Start Num: 24
Candidate Starts for Skelbel_52:
(Start: 24 @38110 has 21 MA's), (32, 38185), (37, 38224), (48, 38287),

Gene: Skelbel_51 Start: 37883, Stop: 38113, Start Num: 18
Candidate Starts for Skelbel_51:
(Start: 18 @37883 has 45 MA's), (34, 38000), (48, 38099),

Gene: Snek_55 Start: 37054, Stop: 37248, Start Num: 49
Candidate Starts for Snek_55:
(Start: 49 @37054 has 3 MA's), (50, 37156), (51, 37213),

Gene: Snek_54 Start: 36857, Stop: 37057, Start Num: 25
Candidate Starts for Snek_54:
(Start: 25 @36857 has 2 MA's), (28, 36902), (36, 36965), (38, 36983), (40, 36995), (48, 37043),

Gene: Soondubu_48 Start: 39736, Stop: 39963, Start Num: 18
Candidate Starts for Soondubu_48:
(Start: 18 @39736 has 45 MA's), (29, 39811), (48, 39949),

Gene: Sooty_45 Start: 33322, Stop: 33534, Start Num: 20
Candidate Starts for Sooty_45:
(11, 33085), (Start: 20 @33322 has 15 MA's), (30, 33388),

Gene: SpecialK_45 Start: 33306, Stop: 33518, Start Num: 20
Candidate Starts for SpecialK_45:
(11, 33069), (Start: 20 @33306 has 15 MA's), (30, 33372),

Gene: Stuu_45 Start: 33420, Stop: 33632, Start Num: 20
Candidate Starts for Stuu_45:
(11, 33183), (Start: 20 @33420 has 15 MA's), (30, 33486),

Gene: Subaru_52 Start: 38107, Stop: 38298, Start Num: 24
Candidate Starts for Subaru_52:
(Start: 24 @38107 has 21 MA's), (32, 38182), (48, 38284),

Gene: Subaru_51 Start: 37880, Stop: 38110, Start Num: 18
Candidate Starts for Subaru_51:
(Start: 18 @37880 has 45 MA's), (34, 37997), (48, 38096),

Gene: Sue2_52 Start: 37060, Stop: 37284, Start Num: 18
Candidate Starts for Sue2_52:
(1, 36403), (2, 36421), (4, 36535), (5, 36604), (8, 36670), (Start: 18 @37060 has 45 MA's), (48, 37270),

Gene: Tallboi_51 Start: 38238, Stop: 38468, Start Num: 18
Candidate Starts for Tallboi_51:
(Start: 18 @38238 has 45 MA's), (34, 38355), (48, 38454),

Gene: Tallboi_52 Start: 38465, Stop: 38656, Start Num: 24
Candidate Starts for Tallboi_52:
(Start: 24 @38465 has 21 MA's), (32, 38540), (48, 38642),

Gene: Tbone_52 Start: 37857, Stop: 38078, Start Num: 18
Candidate Starts for Tbone_52:
(Start: 18 @37857 has 45 MA's), (34, 37971), (48, 38064),

Gene: TforTroy_52 Start: 37603, Stop: 37833, Start Num: 18
Candidate Starts for TforTroy_52:
(Start: 18 @37603 has 45 MA's), (34, 37720), (48, 37819),

Gene: TforTroy_53 Start: 37830, Stop: 38021, Start Num: 24
Candidate Starts for TforTroy_53:
(Start: 24 @37830 has 21 MA's), (48, 38007),

Gene: ThursdayNight_54 Start: 38504, Stop: 38701, Start Num: 23

Candidate Starts for ThursdayNight_54:

(Start: 23 @38504 has 2 MA's), (31, 38582), (39, 38633), (47, 38681), (48, 38687),

Gene: Tian_52 Start: 39795, Stop: 39995, Start Num: 18

Candidate Starts for Tian_52:

(Start: 18 @39795 has 45 MA's), (48, 39981),

Gene: Tian_53 Start: 39992, Stop: 40183, Start Num: 24

Candidate Starts for Tian_53:

(Start: 24 @39992 has 21 MA's), (48, 40169),

Gene: Tuck_55 Start: 39348, Stop: 39566, Start Num: 18

Candidate Starts for Tuck_55:

(Start: 18 @39348 has 45 MA's), (34, 39456), (48, 39552),

Gene: Turab_50 Start: 36578, Stop: 36769, Start Num: 24

Candidate Starts for Turab_50:

(Start: 24 @36578 has 21 MA's), (48, 36755),

Gene: Turab_49 Start: 36357, Stop: 36581, Start Num: 18

Candidate Starts for Turab_49:

(Start: 18 @36357 has 45 MA's), (48, 36567),

Gene: Tutumahutu_53 Start: 37244, Stop: 37465, Start Num: 18

Candidate Starts for Tutumahutu_53:

(Start: 18 @37244 has 45 MA's), (34, 37358), (48, 37451),

Gene: Tweety19_55 Start: 36857, Stop: 37057, Start Num: 25

Candidate Starts for Tweety19_55:

(Start: 25 @36857 has 2 MA's), (28, 36902), (36, 36965), (38, 36983), (40, 36995), (48, 37043),

Gene: Tweety19_56 Start: 37054, Stop: 37248, Start Num: 49

Candidate Starts for Tweety19_56:

(Start: 49 @37054 has 3 MA's), (50, 37156), (51, 37213),

Gene: VResidence_52 Start: 36790, Stop: 37014, Start Num: 18

Candidate Starts for VResidence_52:

(Start: 18 @36790 has 45 MA's), (28, 36856), (35, 36901), (48, 37000),

Gene: Warda_52 Start: 37355, Stop: 37576, Start Num: 18

Candidate Starts for Warda_52:

(Start: 18 @37355 has 45 MA's), (34, 37469), (48, 37562),

Gene: Wildwest_51 Start: 37289, Stop: 37513, Start Num: 18

Candidate Starts for Wildwest_51:

(Start: 18 @37289 has 45 MA's), (48, 37499),

Gene: Yang_51 Start: 37412, Stop: 37642, Start Num: 18

Candidate Starts for Yang_51:

(Start: 18 @37412 has 45 MA's), (34, 37529), (40, 37577), (48, 37628),

Gene: Yang_52 Start: 37639, Stop: 37830, Start Num: 24

Candidate Starts for Yang_52:

(Start: 24 @37639 has 21 MA's), (48, 37816),

Gene: YesChef_52 Start: 37232, Stop: 37453, Start Num: 18

Candidate Starts for YesChef_52:

(Start: 18 @37232 has 45 MA's), (34, 37346), (48, 37439),