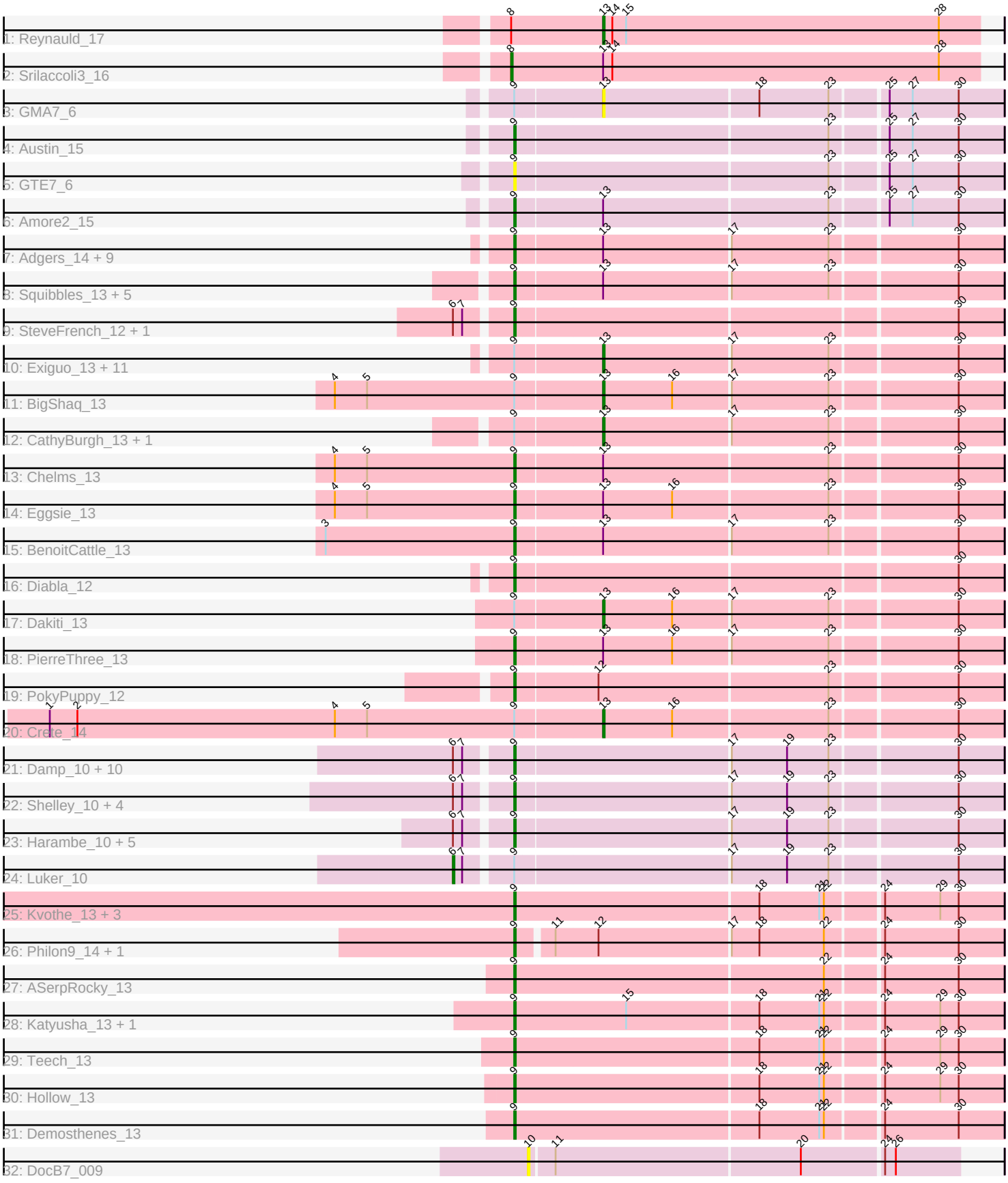
Pham 345640


1: Reynauld_17
2: Srilaccoli3_16
3: GMA7_6
4: Austin_15
5: GTE7_6
6: Amore2_15
7: Adgers_14 + 9
8: Squibbles_13 + 5
9: SteveFrench_12 + 1
10: Exiguo_13 + 11
11: BigShaq_13
12: CathyBurgh_13 + 1
13: Chelms_13
14: Eggsie_13
15: BenoitCattle_13
16: Diabla_12
17: Dakiti_13
18: PierreThree_13
19: PokyPuppy_12
20: Crete_14
21: Damp_10 + 10
22: Shelley_10 + 4
23: Harambe_10 + 5
24: Luker_10
25: Kvothe_13 + 3
26: Philon9_14 + 1
27: ASerpRocky_13
28: Katyusha_13 + 1
29: Teech_13
30: Hollow_13
31: Demosthenes_13
32: DocB7_009

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 345640 Report

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

Pham number 345640 has 83 members, 6 are drafts.

Phages represented in each track:
- Track 1 : Reynauld_17
- Track 2 : Srilaccoli3_16
- Track 3 : GMA7_6
- Track 4 : Austin_15
- Track 5 : GTE7_6
- Track 6 : Amore2_15
- Track 7 : Adgers_14, Barbochs_13, Boneham_13, Jellybones_13, Sam12_13, Breezic_13, John316_13, BirksAndSocks_13, Beaver_13, Ekhein_13
- Track 8 : Squibbles_13, Flakey_13, Linetti_14, Lizzo_13, GourdThymes_13, Hotorobo_13
- Track 9 : SteveFrench_12, RoyalG_14
- Track 10 : Exiguo_13, Msay19_14, RemRem_14, Gorko_13, Butterball_13, Sombrero_13, FelixAlejandro_14, Poland_14, BillyBobJr_14, CinnamonToast_14, Worcestershire_13, Monty_12
- Track 11 : BigShaq_13
- Track 12 : CathyBurgh_13, Kelzog_13
- Track 13 : Chelms_13
- Track 14 : Eggsie_13
- Track 15 : BenoitCattle_13
- Track 16 : Diabla_12
- Track 17 : Dakiti_13
- Track 18 : PierreThree_13
- Track 19 : PokyPuppy_12
- Track 20 : Crete_14
- Track 21 : Damp_10, Teal_10, Charianelly_10, GalacticEye_10, Guillaume_10, Newt_10, MrWormie_10, Minos_10, Nimi13_10, Sticker17_10, Jormungandr_10
- Track 22 : Shelley_10, Berries_10, Kaseim_10, Woes_10, Lidong_10
- Track 23 : Harambe_10, Jams_10, Lahirium_10, Anamika_10, Neoevie_10, Hail2Pitt_10
- Track 24 : Luker_10
- Track 25 : Kvothe_13, Tredge_13, Niagara_13, Teatealatte_13
- Track 26 : Philon9_14, Vitaenoii_14
- Track 27 : ASerpRocky_13
- Track 28 : Katyusha_13, Benczkowski14_13
- Track 29 : Teech_13
- Track 30 : Hollow_13
- Track 31 : Demosthenes_13

• Track 32 : DocB7_009

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

The start number called the most often in the published annotations is 9, it was called in 60 of the 77 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ASerpRocky_13, Adgers_14, Amore2_15, Anamika_10, Austin_15, Barbochs_13, Beaver_13, Benczkowski14_13, BenoitCattle_13, Berries_10, BirksAndSocks_13, Boneham_13, Breezic_13, Charianelly_10, Chelms_13, Damp_10, Demosthenes_13, Diabla_12, Eggsie_13, Ekhein_13, Flakey_13, GTE7_6, GalacticEye_10, GourdThymes_13, Guillaume_10, Hail2Pitt_10, Harambe_10, Hollow_13, Hotorobo_13, Jams_10, Jellybones_13, John316_13, Jormungandr_10, Kaseim_10, Katyusha_13, Kvothe_13, Lahirium_10, Lidong_10, Linetti_14, Lizzo_13, Minos_10, MrWormie_10, Neoevie_10, Newt_10, Niagara_13, Nimi13_10, Philon9_14, PierreThree_13, PokyPuppy_12, RoyalG_14, Sam12_13, Shelley_10, Squibbles_13, SteveFrench_12, Sticker17_10, Teal_10, Teatealatte_13, Teech_13, Tredge_13, Vitaenoii_14, Woes_10,

Genes that have the "Most Annotated" start but do not call it:
• BigShaq_13, BillyBobJr_14, Butterball_13, CathyBurgh_13, CinnamonToast_14, Crete_14, Dakiti_13, Exiguo_13, FelixAlejandro_14, GMA7_6, Gorko_13, Kelzog_13, Luker_10, Monty_12, Msay19_14, Poland_14, RemRem_14, Sombrero_13, Worcestershire_13,

Genes that do not have the "Most Annotated" start:
• DocB7_009, Reynauld_17, Srilaccoli3_16,

Summary by start number:

Start 6:
• Found in 25 of 83 (30.1%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 4.0% of time when present
• Phage (with cluster) where this start called: Luker_10 (CS3),

Start 8:
• Found in 2 of 83 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Srilaccoli3_16 (CH),

Start 9:
• Found in 80 of 83 (96.4%) of genes in pham
• Manual Annotations of this start: 60 of 77
• Called 76.2% of time when present
• Phage (with cluster) where this start called: ASerpRocky_13 (CS4), Adgers_14 (CS2), Amore2_15 (CS1), Anamika_10 (CS3), Austin_15 (CS1), Barbochs_13 (CS2), Beaver_13 (CS2), Benczkowski14_13 (CS4), BenoitCattle_13 (CS2), Berries_10

(CS3), BirksAndSocks_13 (CS2), Boneham_13 (CS2), Breezic_13 (CS2), Charianelly_10 (CS3), Chelms_13 (CS2), Damp_10 (CS3), Demosthenes_13 (CS4), Diabla_12 (CS2), Eggsie_13 (CS2), Ekhein_13 (CS2), Flakey_13 (CS2), GTE7_6 (CS1), GalacticEye_10 (CS3), GourdThymes_13 (CS2), Guillaume_10 (CS3), Hail2Pitt_10 (CS3), Harambe_10 (CS3), Hollow_13 (CS4), Hotorobo_13 (CS2), Jams_10 (CS3), Jellybones_13 (CS2), John316_13 (CS2), Jormungandr_10 (CS3), Kaseim_10 (CS3), Katyusha_13 (CS4), Kvothe_13 (CS4), Lahirium_10 (CS3), Lidong_10 (CS3), Linetti_14 (CS2), Lizzo_13 (CS2), Minos_10 (CS3), MrWormie_10 (CS3), Neoevie_10 (CS3), Newt_10 (CS3), Niagara_13 (CS4), Nimi13_10 (CS3), Philon9_14 (CS4), PierreThree_13 (CS2), PokyPuppy_12 (CS2), RoyalG_14 (CS2), Sam12_13 (CS2), Shelley_10 (CS3), Squibbles_13 (CS2), SteveFrench_12 (CS2), Sticker17_10 (CS3), Teal_10 (CS3), Teatealatte_13 (CS4), Teech_13 (CS4), Tredge_13 (CS4), Vitaenoii_14 (CS4), Woes_10 (CS3),

Start 10:
• Found in 1 of 83 (1.2%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DocB7_009 (singleton),

Start 13:
• Found in 41 of 83 (49.4%) of genes in pham
• Manual Annotations of this start: 15 of 77
• Called 46.3% of time when present
• Phage (with cluster) where this start called: BigShaq_13 (CS2), BillyBobJr_14 (CS2), Butterball_13 (CS2), CathyBurgh_13 (CS2), CinnamonToast_14 (CS2), Crete_14 (CS2), Dakiti_13 (CS2), Exiguo_13 (CS2), FelixAlejandro_14 (CS2), GMA7_6 (CS1), Gorko_13 (CS2), Kelzog_13 (CS2), Monty_12 (CS2), Msay19_14 (CS2), Poland_14 (CS2), RemRem_14 (CS2), Reynauld_17 (CH), Sombrero_13 (CS2), Worcestershire_13 (CS2),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, CH, CS4, CS1, CS3, CS2,

Info for manual annotations of cluster CH:
•Start number 8 was manually annotated 1 time for cluster CH.
•Start number 13 was manually annotated 1 time for cluster CH.

Info for manual annotations of cluster CS1:
•Start number 9 was manually annotated 2 times for cluster CS1.

Info for manual annotations of cluster CS2:
•Start number 9 was manually annotated 24 times for cluster CS2.
•Start number 13 was manually annotated 14 times for cluster CS2.

Info for manual annotations of cluster CS3:
•Start number 6 was manually annotated 1 time for cluster CS3.
•Start number 9 was manually annotated 22 times for cluster CS3.

Info for manual annotations of cluster CS4:
•Start number 9 was manually annotated 12 times for cluster CS4.

Gene Information:

Gene: ASerpRocky_13 Start: 14958, Stop: 15266, Start Num: 9
Candidate Starts for ASerpRocky_13:
(Start: 9 @14958 has 60 MA's), (22, 15156), (24, 15189), (30, 15237),

Gene: Adgers_14 Start: 12592, Stop: 12897, Start Num: 9
Candidate Starts for Adgers_14:
(Start: 9 @12592 has 60 MA's), (Start: 13 @12646 has 15 MA's), (17, 12727), (23, 12790), (30, 12868),

Gene: Amore2_15 Start: 12500, Stop: 12805, Start Num: 9
Candidate Starts for Amore2_15:
(Start: 9 @12500 has 60 MA's), (Start: 13 @12554 has 15 MA's), (23, 12698), (25, 12731), (27, 12746), (30, 12776),

Gene: Anamika_10 Start: 13516, Stop: 13821, Start Num: 9
Candidate Starts for Anamika_10:
(Start: 6 @13483 has 1 MA's), (7, 13489), (Start: 9 @13516 has 60 MA's), (17, 13651), (19, 13687), (23, 13714), (30, 13792),

Gene: Austin_15 Start: 12500, Stop: 12805, Start Num: 9
Candidate Starts for Austin_15:
(Start: 9 @12500 has 60 MA's), (23, 12698), (25, 12731), (27, 12746), (30, 12776),

Gene: Barbochs_13 Start: 12430, Stop: 12735, Start Num: 9
Candidate Starts for Barbochs_13:
(Start: 9 @12430 has 60 MA's), (Start: 13 @12484 has 15 MA's), (17, 12565), (23, 12628), (30, 12706),

Gene: Beaver_13 Start: 12438, Stop: 12743, Start Num: 9
Candidate Starts for Beaver_13:
(Start: 9 @12438 has 60 MA's), (Start: 13 @12492 has 15 MA's), (17, 12573), (23, 12636), (30, 12714),

Gene: Benczkowski14_13 Start: 15021, Stop: 15329, Start Num: 9
Candidate Starts for Benczkowski14_13:
(Start: 9 @15021 has 60 MA's), (15, 15093), (18, 15177), (21, 15216), (22, 15219), (24, 15252), (29, 15288), (30, 15300),

Gene: BenoitCattle_13 Start: 12430, Stop: 12735, Start Num: 9
Candidate Starts for BenoitCattle_13:
(3, 12307), (Start: 9 @12430 has 60 MA's), (Start: 13 @12484 has 15 MA's), (17, 12565), (23, 12628), (30, 12706),

Gene: Berries_10 Start: 13501, Stop: 13806, Start Num: 9
Candidate Starts for Berries_10:
(Start: 6 @13468 has 1 MA's), (7, 13474), (Start: 9 @13501 has 60 MA's), (17, 13636), (19, 13672), (23, 13699), (30, 13777),

Gene: BigShaq_13 Start: 12486, Stop: 12737, Start Num: 13
Candidate Starts for BigShaq_13:
(4, 12315), (5, 12336), (Start: 9 @12432 has 60 MA's), (Start: 13 @12486 has 15 MA's), (16, 12531), (17, 12567), (23, 12630), (30, 12708),

Gene: BillyBobJr_14 Start: 12516, Stop: 12767, Start Num: 13
Candidate Starts for BillyBobJr_14:
(Start: 9 @12462 has 60 MA's), (Start: 13 @12516 has 15 MA's), (17, 12597), (23, 12660), (30, 12738),

Gene: BirksAndSocks_13 Start: 12427, Stop: 12732, Start Num: 9
Candidate Starts for BirksAndSocks_13:
(Start: 9 @12427 has 60 MA's), (Start: 13 @12481 has 15 MA's), (17, 12562), (23, 12625), (30, 12703),

Gene: Boneham_13 Start: 12426, Stop: 12731, Start Num: 9
Candidate Starts for Boneham_13:
(Start: 9 @12426 has 60 MA's), (Start: 13 @12480 has 15 MA's), (17, 12561), (23, 12624), (30, 12702),

Gene: Breezic_13 Start: 12441, Stop: 12746, Start Num: 9
Candidate Starts for Breezic_13:
(Start: 9 @12441 has 60 MA's), (Start: 13 @12495 has 15 MA's), (17, 12576), (23, 12639), (30, 12717),

Gene: Butterball_13 Start: 12480, Stop: 12731, Start Num: 13
Candidate Starts for Butterball_13:
(Start: 9 @12426 has 60 MA's), (Start: 13 @12480 has 15 MA's), (17, 12561), (23, 12624), (30, 12702),

Gene: CathyBurgh_13 Start: 13352, Stop: 13603, Start Num: 13
Candidate Starts for CathyBurgh_13:
(Start: 9 @13298 has 60 MA's), (Start: 13 @13352 has 15 MA's), (17, 13433), (23, 13496), (30, 13574),

Gene: Charianelly_10 Start: 13233, Stop: 13538, Start Num: 9
Candidate Starts for Charianelly_10:
(Start: 6 @13200 has 1 MA's), (7, 13206), (Start: 9 @13233 has 60 MA's), (17, 13368), (19, 13404), (23, 13431), (30, 13509),

Gene: Chelms_13 Start: 12432, Stop: 12737, Start Num: 9
Candidate Starts for Chelms_13:
(4, 12315), (5, 12336), (Start: 9 @12432 has 60 MA's), (Start: 13 @12486 has 15 MA's), (23, 12630), (30, 12708),

Gene: CinnamonToast_14 Start: 12516, Stop: 12767, Start Num: 13
Candidate Starts for CinnamonToast_14:
(Start: 9 @12462 has 60 MA's), (Start: 13 @12516 has 15 MA's), (17, 12597), (23, 12660), (30, 12738),

Gene: Crete_14 Start: 12737, Stop: 12988, Start Num: 13
Candidate Starts for Crete_14:
(1, 12380), (2, 12398), (4, 12566), (5, 12587), (Start: 9 @12683 has 60 MA's), (Start: 13 @12737 has 15 MA's), (16, 12782), (23, 12881), (30, 12959),

Gene: Dakiti_13 Start: 13354, Stop: 13605, Start Num: 13
Candidate Starts for Dakiti_13:
(Start: 9 @13300 has 60 MA's), (Start: 13 @13354 has 15 MA's), (16, 13399), (17, 13435), (23, 13498), (30, 13576),

Gene: Damp_10 Start: 12397, Stop: 12702, Start Num: 9
Candidate Starts for Damp_10:
(Start: 6 @12364 has 1 MA's), (7, 12370), (Start: 9 @12397 has 60 MA's), (17, 12532), (19, 12568), (23, 12595), (30, 12673),

Gene: Demosthenes_13 Start: 14928, Stop: 15236, Start Num: 9
Candidate Starts for Demosthenes_13:
(Start: 9 @14928 has 60 MA's), (18, 15084), (21, 15123), (22, 15126), (24, 15159), (30, 15207),

Gene: Diabla_12 Start: 12248, Stop: 12553, Start Num: 9
Candidate Starts for Diabla_12:
(Start: 9 @12248 has 60 MA's), (30, 12524),

Gene: DocB7_009 Start: 10204, Stop: 10473, Start Num: 10
Candidate Starts for DocB7_009:
(10, 10204), (11, 10219), (20, 10375), (24, 10426), (26, 10432),

Gene: Eggsie_13 Start: 12443, Stop: 12748, Start Num: 9
Candidate Starts for Eggsie_13:
(4, 12326), (5, 12347), (Start: 9 @12443 has 60 MA's), (Start: 13 @12497 has 15 MA's), (16, 12542), (23, 12641), (30, 12719),

Gene: Ekhein_13 Start: 12426, Stop: 12731, Start Num: 9
Candidate Starts for Ekhein_13:
(Start: 9 @12426 has 60 MA's), (Start: 13 @12480 has 15 MA's), (17, 12561), (23, 12624), (30, 12702),

Gene: Exiguo_13 Start: 12492, Stop: 12743, Start Num: 13
Candidate Starts for Exiguo_13:
(Start: 9 @12438 has 60 MA's), (Start: 13 @12492 has 15 MA's), (17, 12573), (23, 12636), (30, 12714),

Gene: FelixAlejandro_14 Start: 12678, Stop: 12929, Start Num: 13
Candidate Starts for FelixAlejandro_14:
(Start: 9 @12624 has 60 MA's), (Start: 13 @12678 has 15 MA's), (17, 12759), (23, 12822), (30, 12900),

Gene: Flakey_13 Start: 13299, Stop: 13604, Start Num: 9
Candidate Starts for Flakey_13:
(Start: 9 @13299 has 60 MA's), (Start: 13 @13353 has 15 MA's), (17, 13434), (23, 13497), (30, 13575),

Gene: GMA7_6 Start: 6743, Stop: 6994, Start Num: 13
Candidate Starts for GMA7_6:
(Start: 9 @6689 has 60 MA's), (Start: 13 @6743 has 15 MA's), (18, 6842), (23, 6887), (25, 6920), (27, 6935), (30, 6965),

Gene: GTE7_6 Start: 6748, Stop: 7053, Start Num: 9
Candidate Starts for GTE7_6:
(Start: 9 @6748 has 60 MA's), (23, 6946), (25, 6979), (27, 6994), (30, 7024),

Gene: GalacticEye_10 Start: 13222, Stop: 13527, Start Num: 9
Candidate Starts for GalacticEye_10:
(Start: 6 @13189 has 1 MA's), (7, 13195), (Start: 9 @13222 has 60 MA's), (17, 13357), (19, 13393), (23, 13420), (30, 13498),

Gene: Gorko_13 Start: 12484, Stop: 12735, Start Num: 13
Candidate Starts for Gorko_13:
(Start: 9 @12430 has 60 MA's), (Start: 13 @12484 has 15 MA's), (17, 12565), (23, 12628), (30, 12706),

Gene: GourdThymes_13 Start: 13298, Stop: 13603, Start Num: 9

Candidate Starts for GourdThymes_13:
(Start: 9 @13298 has 60 MA's), (Start: 13 @13352 has 15 MA's), (17, 13433), (23, 13496), (30, 13574),

Gene: Guillaume_10 Start: 13254, Stop: 13559, Start Num: 9
Candidate Starts for Guillaume_10:
(Start: 6 @13221 has 1 MA's), (7, 13227), (Start: 9 @13254 has 60 MA's), (17, 13389), (19, 13425), (23, 13452), (30, 13530),

Gene: Hail2Pitt_10 Start: 13731, Stop: 14036, Start Num: 9
Candidate Starts for Hail2Pitt_10:
(Start: 6 @13698 has 1 MA's), (7, 13704), (Start: 9 @13731 has 60 MA's), (17, 13866), (19, 13902), (23, 13929), (30, 14007),

Gene: Harambe_10 Start: 13515, Stop: 13820, Start Num: 9
Candidate Starts for Harambe_10:
(Start: 6 @13482 has 1 MA's), (7, 13488), (Start: 9 @13515 has 60 MA's), (17, 13650), (19, 13686), (23, 13713), (30, 13791),

Gene: Hollow_13 Start: 14187, Stop: 14495, Start Num: 9
Candidate Starts for Hollow_13:
(Start: 9 @14187 has 60 MA's), (18, 14343), (21, 14382), (22, 14385), (24, 14418), (29, 14454), (30, 14466),

Gene: Hotorobo_13 Start: 13309, Stop: 13614, Start Num: 9
Candidate Starts for Hotorobo_13:
(Start: 9 @13309 has 60 MA's), (Start: 13 @13363 has 15 MA's), (17, 13444), (23, 13507), (30, 13585),

Gene: Jams_10 Start: 12695, Stop: 13000, Start Num: 9
Candidate Starts for Jams_10:
(Start: 6 @12662 has 1 MA's), (7, 12668), (Start: 9 @12695 has 60 MA's), (17, 12830), (19, 12866), (23, 12893), (30, 12971),

Gene: Jellybones_13 Start: 12461, Stop: 12766, Start Num: 9
Candidate Starts for Jellybones_13:
(Start: 9 @12461 has 60 MA's), (Start: 13 @12515 has 15 MA's), (17, 12596), (23, 12659), (30, 12737),

Gene: John316_13 Start: 12426, Stop: 12731, Start Num: 9
Candidate Starts for John316_13:
(Start: 9 @12426 has 60 MA's), (Start: 13 @12480 has 15 MA's), (17, 12561), (23, 12624), (30, 12702),

Gene: Jormungandr_10 Start: 13236, Stop: 13541, Start Num: 9
Candidate Starts for Jormungandr_10:
(Start: 6 @13203 has 1 MA's), (7, 13209), (Start: 9 @13236 has 60 MA's), (17, 13371), (19, 13407), (23, 13434), (30, 13512),

Gene: Kaseim_10 Start: 12687, Stop: 12992, Start Num: 9
Candidate Starts for Kaseim_10:
(Start: 6 @12654 has 1 MA's), (7, 12660), (Start: 9 @12687 has 60 MA's), (17, 12822), (19, 12858), (23, 12885), (30, 12963),

Gene: Katyusha_13 Start: 15021, Stop: 15329, Start Num: 9
Candidate Starts for Katyusha_13:

(Start: 9 @15021 has 60 MA's), (15, 15093), (18, 15177), (21, 15216), (22, 15219), (24, 15252), (29, 15288), (30, 15300),

Gene: Kelzog_13 Start: 13364, Stop: 13615, Start Num: 13
Candidate Starts for Kelzog_13:
(Start: 9 @13310 has 60 MA's), (Start: 13 @13364 has 15 MA's), (17, 13445), (23, 13508), (30, 13586),

Gene: Kvothe_13 Start: 14958, Stop: 15266, Start Num: 9
Candidate Starts for Kvothe_13:
(Start: 9 @14958 has 60 MA's), (18, 15114), (21, 15153), (22, 15156), (24, 15189), (29, 15225), (30, 15237),

Gene: Lahirium_10 Start: 13752, Stop: 14057, Start Num: 9
Candidate Starts for Lahirium_10:
(Start: 6 @13719 has 1 MA's), (7, 13725), (Start: 9 @13752 has 60 MA's), (17, 13887), (19, 13923), (23, 13950), (30, 14028),

Gene: Lidong_10 Start: 13501, Stop: 13806, Start Num: 9
Candidate Starts for Lidong_10:
(Start: 6 @13468 has 1 MA's), (7, 13474), (Start: 9 @13501 has 60 MA's), (17, 13636), (19, 13672), (23, 13699), (30, 13777),

Gene: Linetti_14 Start: 13449, Stop: 13754, Start Num: 9
Candidate Starts for Linetti_14:
(Start: 9 @13449 has 60 MA's), (Start: 13 @13503 has 15 MA's), (17, 13584), (23, 13647), (30, 13725),

Gene: Lizzo_13 Start: 13298, Stop: 13603, Start Num: 9
Candidate Starts for Lizzo_13:
(Start: 9 @13298 has 60 MA's), (Start: 13 @13352 has 15 MA's), (17, 13433), (23, 13496), (30, 13574),

Gene: Luker_10 Start: 13183, Stop: 13521, Start Num: 6
Candidate Starts for Luker_10:
(Start: 6 @13183 has 1 MA's), (7, 13189), (Start: 9 @13216 has 60 MA's), (17, 13351), (19, 13387), (23, 13414), (30, 13492),

Gene: Minos_10 Start: 13222, Stop: 13527, Start Num: 9
Candidate Starts for Minos_10:
(Start: 6 @13189 has 1 MA's), (7, 13195), (Start: 9 @13222 has 60 MA's), (17, 13357), (19, 13393), (23, 13420), (30, 13498),

Gene: Monty_12 Start: 12496, Stop: 12747, Start Num: 13
Candidate Starts for Monty_12:
(Start: 9 @12442 has 60 MA's), (Start: 13 @12496 has 15 MA's), (17, 12577), (23, 12640), (30, 12718),

Gene: MrWormie_10 Start: 12386, Stop: 12691, Start Num: 9
Candidate Starts for MrWormie_10:
(Start: 6 @12353 has 1 MA's), (7, 12359), (Start: 9 @12386 has 60 MA's), (17, 12521), (19, 12557), (23, 12584), (30, 12662),

Gene: Msay19_14 Start: 12670, Stop: 12921, Start Num: 13
Candidate Starts for Msay19_14:
(Start: 9 @12616 has 60 MA's), (Start: 13 @12670 has 15 MA's), (17, 12751), (23, 12814), (30, 12892),

Gene: Neoevie_10 Start: 13492, Stop: 13797, Start Num: 9
Candidate Starts for Neoevie_10:
(Start: 6 @13459 has 1 MA's), (7, 13465), (Start: 9 @13492 has 60 MA's), (17, 13627), (19, 13663), (23, 13690), (30, 13768),

Gene: Newt_10 Start: 13233, Stop: 13538, Start Num: 9
Candidate Starts for Newt_10:
(Start: 6 @13200 has 1 MA's), (7, 13206), (Start: 9 @13233 has 60 MA's), (17, 13368), (19, 13404), (23, 13431), (30, 13509),

Gene: Niagara_13 Start: 14978, Stop: 15286, Start Num: 9
Candidate Starts for Niagara_13:
(Start: 9 @14978 has 60 MA's), (18, 15134), (21, 15173), (22, 15176), (24, 15209), (29, 15245), (30, 15257),

Gene: Nimi13_10 Start: 13234, Stop: 13539, Start Num: 9
Candidate Starts for Nimi13_10:
(Start: 6 @13201 has 1 MA's), (7, 13207), (Start: 9 @13234 has 60 MA's), (17, 13369), (19, 13405), (23, 13432), (30, 13510),

Gene: Philon9_14 Start: 16867, Stop: 17169, Start Num: 9
Candidate Starts for Philon9_14:
(Start: 9 @16867 has 60 MA's), (11, 16888), (12, 16915), (17, 16999), (18, 17017), (22, 17059), (24, 17092), (30, 17140),

Gene: PierreThree_13 Start: 13300, Stop: 13605, Start Num: 9
Candidate Starts for PierreThree_13:
(Start: 9 @13300 has 60 MA's), (Start: 13 @13354 has 15 MA's), (16, 13399), (17, 13435), (23, 13498), (30, 13576),

Gene: PokyPuppy_12 Start: 13191, Stop: 13496, Start Num: 9
Candidate Starts for PokyPuppy_12:
(Start: 9 @13191 has 60 MA's), (12, 13242), (23, 13389), (30, 13467),

Gene: Poland_14 Start: 12646, Stop: 12897, Start Num: 13
Candidate Starts for Poland_14:
(Start: 9 @12592 has 60 MA's), (Start: 13 @12646 has 15 MA's), (17, 12727), (23, 12790), (30, 12868),

Gene: RemRem_14 Start: 12492, Stop: 12743, Start Num: 13
Candidate Starts for RemRem_14:
(Start: 9 @12438 has 60 MA's), (Start: 13 @12492 has 15 MA's), (17, 12573), (23, 12636), (30, 12714),

Gene: Reynauld_17 Start: 13430, Stop: 13675, Start Num: 13
Candidate Starts for Reynauld_17:
(Start: 8 @13370 has 1 MA's), (Start: 13 @13430 has 15 MA's), (14, 13436), (15, 13445), (28, 13649),

Gene: RoyalG_14 Start: 12925, Stop: 13230, Start Num: 9
Candidate Starts for RoyalG_14:
(Start: 6 @12892 has 1 MA's), (7, 12898), (Start: 9 @12925 has 60 MA's), (30, 13201),

Gene: Sam12_13 Start: 12438, Stop: 12743, Start Num: 9
Candidate Starts for Sam12_13:
(Start: 9 @12438 has 60 MA's), (Start: 13 @12492 has 15 MA's), (17, 12573), (23, 12636), (30, 12714),

Gene: Shelley_10 Start: 12710, Stop: 13015, Start Num: 9
Candidate Starts for Shelley_10:
(Start: 6 @12677 has 1 MA's), (7, 12683), (Start: 9 @12710 has 60 MA's), (17, 12845), (19, 12881), (23, 12908), (30, 12986),

Gene: Sombrero_13 Start: 12526, Stop: 12777, Start Num: 13
Candidate Starts for Sombrero_13:
(Start: 9 @12472 has 60 MA's), (Start: 13 @12526 has 15 MA's), (17, 12607), (23, 12670), (30, 12748),

Gene: Squibbles_13 Start: 13298, Stop: 13603, Start Num: 9
Candidate Starts for Squibbles_13:
(Start: 9 @13298 has 60 MA's), (Start: 13 @13352 has 15 MA's), (17, 13433), (23, 13496), (30, 13574),

Gene: Srilaccoli3_16 Start: 13130, Stop: 13435, Start Num: 8
Candidate Starts for Srilaccoli3_16:
(Start: 8 @13130 has 1 MA's), (Start: 13 @13190 has 15 MA's), (14, 13196), (28, 13409),

Gene: SteveFrench_12 Start: 12519, Stop: 12824, Start Num: 9
Candidate Starts for SteveFrench_12:
(Start: 6 @12486 has 1 MA's), (7, 12492), (Start: 9 @12519 has 60 MA's), (30, 12795),

Gene: Sticker17_10 Start: 13233, Stop: 13538, Start Num: 9
Candidate Starts for Sticker17_10:
(Start: 6 @13200 has 1 MA's), (7, 13206), (Start: 9 @13233 has 60 MA's), (17, 13368), (19, 13404), (23, 13431), (30, 13509),

Gene: Teal_10 Start: 13210, Stop: 13515, Start Num: 9
Candidate Starts for Teal_10:
(Start: 6 @13177 has 1 MA's), (7, 13183), (Start: 9 @13210 has 60 MA's), (17, 13345), (19, 13381), (23, 13408), (30, 13486),

Gene: Teatealatte_13 Start: 14941, Stop: 15249, Start Num: 9
Candidate Starts for Teatealatte_13:
(Start: 9 @14941 has 60 MA's), (18, 15097), (21, 15136), (22, 15139), (24, 15172), (29, 15208), (30, 15220),

Gene: Teech_13 Start: 14742, Stop: 15050, Start Num: 9
Candidate Starts for Teech_13:
(Start: 9 @14742 has 60 MA's), (18, 14898), (21, 14937), (22, 14940), (24, 14973), (29, 15009), (30, 15021),

Gene: Tredge_13 Start: 14941, Stop: 15249, Start Num: 9
Candidate Starts for Tredge_13:
(Start: 9 @14941 has 60 MA's), (18, 15097), (21, 15136), (22, 15139), (24, 15172), (29, 15208), (30, 15220),

Gene: Vitaenoii_14 Start: 16866, Stop: 17168, Start Num: 9
Candidate Starts for Vitaenoii_14:
(Start: 9 @16866 has 60 MA's), (11, 16887), (12, 16914), (17, 16998), (18, 17016), (22, 17058), (24, 17091), (30, 17139),

Gene: Woes_10 Start: 13762, Stop: 14067, Start Num: 9

Candidate Starts for Woes_10:
(Start: 6 @13729 has 1 MA's), (7, 13735), (Start: 9 @13762 has 60 MA's), (17, 13897), (19, 13933), (23, 13960), (30, 14038),

Gene: Worcestershire_13 Start: 12494, Stop: 12745, Start Num: 13
Candidate Starts for Worcestershire_13:
(Start: 9 @12440 has 60 MA's), (Start: 13 @12494 has 15 MA's), (17, 12575), (23, 12638), (30, 12716),