Pham 304956


1: Abidatro_27
2: Niblet_26 + 2
3: Orcanus_26 + 1
4: Amanises_27
5: Jamun_25
6: Vulpecula_25
7: Basilisk_26
8: TaylorSipht_26
9: Brynnie_25
10: Galaxy_26
11: Antrice_26 + 1
12: Kuleana_27
13: Andrew_28
14: AlexMinion_25
15: Arbiter_43 + 2
16: Jolie1_037 + 1
17: 40BC_037 + 1
18: Hosp_035
19: KayaCho_37
20: Catfish_31
21: LonelyBoi_35
22: Hugley_32
23: Whiteclaw_30 + 13
24: Vasanti_31
25: RayTheFireFly_38
26: Frickyeah_39 + 3
27: Squiddly_40 + 1
28: Crater_36
29: ShroomBoi_22 + 1
30: Madiba_23 + 1
31: Bipolar_22 + 7
32: Sunshine23_32 + 1
33: Mufasa8_29
34: Maruru_31
35: Stuck_40
36: Sbash_32
37: Purky_30
38: Purky_36
39: Sleepyhead_33
40: Lukepolites_69
41: Shambre1_30
42: Whack_33
43: phiAsp2_39

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 304956 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304956 has 78 members, 13 are drafts.

Phages represented in each track:
- Track 1 : Abidatro_27
- Track 2 : Niblet_26, Chicken_26, Zixiang_26
- Track 3 : Orcanus_26, Toad24_27
- Track 4 : Amanises_27
- Track 5 : Jamun_25
- Track 6 : Vulpecula_25
- Track 7 : Basilisk_26
- Track 8 : TaylorSipht_26
- Track 9 : Brynnie_25
- Track 10 : Galaxy_26
- Track 11 : Antrice_26, Cygnet_25
- Track 12 : Kuleana_27
- Track 13 : Andrew_28
- Track 14 : AlexMinion_25
- Track 15 : Arbiter_43, Qyrzula_41, Rosebush_43
- Track 16 : Jolie1_037, ForDig_37
- Track 17 : 40BC_037, 39HC_037
- Track 18 : Hosp_035
- Track 19 : KayaCho_37
- Track 20 : Catfish_31
- Track 21 : LonelyBoi_35
- Track 22 : Hugley_32
- Track 23 : Whiteclaw_30, Jalleen_30, Savage_30, Sahara_29, Mocha12_30, Haley23_30, GemG_30, Cynthia_30, Clap_30, TuertoX_30, Ebert_31, Gizermo_30, Sproutie_30, Yinzer_30
- Track 24 : Vasanti_31
- Track 25 : RayTheFireFly_38
- Track 26 : Frickyeah_39, Apricot_38, BENtherdunthat_38, Phistory_39
- Track 27 : Squiddly_40, Spooky_39
- Track 28 : Crater_36
- Track 29 : ShroomBoi_22, Avani_28
- Track 30 : Madiba_23, ThetaBob_24
- Track 31 : Bipolar_22, Che9d_28, Kenuha5_22, Demsculpinboyz_28, Kersh_23, Ogopogo_25, Pollywog_25, Yoshi_28
- Track 32 : Sunshine23_32, Sonali_32
- Track 33 : Mufasa8_29
- Track 34 : Maruru_31

• Track 35 : Stuck_40
• Track 36 : Sbash_32
• Track 37 : Purky_30
• Track 38 : Purky_36
• Track 39 : Sleepyhead_33
• Track 40 : Lukepolites_69
• Track 41 : Shambre1_30
• Track 42 : Whack_33
• Track 43 : phiAsp2_39

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

The start number called the most often in the published annotations is 41, it was called in 17 of the 65 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AlexMinion_25, Amanises_27, Andrew_28, Antrice_26, Basilisk_26, Catfish_31, Chicken_26, Cygnet_25, Galaxy_26, Kuleana_27, Madiba_23, Niblet_26, Orcanus_26, Shambre1_30, TaylorSipht_26, ThetaBob_24, Toad24_27, Zixiang_26,

Genes that have the "Most Annotated" start but do not call it:
• Avani_28, Bipolar_22, Che9d_28, Demsculpinboyz_28, KayaCho_37, Kenuha5_22, Kersh_23, Ogopogo_25, Pollywog_25, Purky_36, ShroomBoi_22, Yoshi_28, phiAsp2_39,

Genes that do not have the "Most Annotated" start:
• 39HC_037, 40BC_037, Abidatro_27, Apricot_38, Arbiter_43, BENtherdunthat_38, Brynnie_25, Clap_30, Crater_36, Cynthia_30, Ebert_31, ForDig_37, Frickyeah_39, GemG_30, Gizermo_30, Haley23_30, Hosp_035, Hugley_32, Jalleen_30, Jamun_25, Jolie1_037, LonelyBoi_35, Lukepolites_69, Maruru_31, Mocha12_30, Mufasa8_29, Phistory_39, Purky_30, Qyrzula_41, RayTheFireFly_38, Rosebush_43, Sahara_29, Savage_30, Sbash_32, Sleepyhead_33, Sonali_32, Spooky_39, Sproutie_30, Squiddly_40, Stuck_40, Sunshine23_32, TuertoX_30, Vasanti_31, Vulpecula_25, Whack_33, Whiteclaw_30, Yinzer_30,

Summary by start number:

Start 18:
• Found in 1 of 78 (1.3%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: phiAsp2_39 (singleton),

Start 21:
• Found in 12 of 78 (15.4%) of genes in pham
• Manual Annotations of this start: 2 of 65
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Sleepyhead_33 (singleton), Whack_33 (singleton),

Start 23:
• Found in 3 of 78 (3.8%) of genes in pham
• Manual Annotations of this start: 2 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Purky_30 (P6), Sbash_32 (I2), Stuck_40 (I2),

Start 24:
• Found in 2 of 78 (2.6%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Lukepolites_69 (singleton),

Start 25:
• Found in 13 of 78 (16.7%) of genes in pham
• Manual Annotations of this start: 1 of 65
• Called 7.7% of time when present
• Phage (with cluster) where this start called: Purky_36 (P6),

Start 28:
• Found in 2 of 78 (2.6%) of genes in pham
• Manual Annotations of this start: 2 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Spooky_39 (DN2), Squiddly_40 (DN2),

Start 31:
• Found in 7 of 78 (9.0%) of genes in pham
• Manual Annotations of this start: 2 of 65
• Called 85.7% of time when present
• Phage (with cluster) where this start called: 39HC_037 (B6), 40BC_037 (B6), ForDig_37 (B6), Hosp_035 (B6), Jolie1_037 (B6), KayaCho_37 (B6),

Start 33:
• Found in 15 of 78 (19.2%) of genes in pham
• Manual Annotations of this start: 13 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Clap_30 (CZ2), Cynthia_30 (CZ2), Ebert_31 (CZ2), GemG_30 (CZ2), Gizermo_30 (CZ2), Haley23_30 (CZ2), Jalleen_30 (CZ2), Mocha12_30 (CZ2), Sahara_29 (CZ2), Savage_30 (CZ2), Sproutie_30 (CZ2), TuertoX_30 (CZ2), Vasanti_31 (CZ2), Whiteclaw_30 (CZ2), Yinzer_30 (CZ2),

Start 35:
• Found in 1 of 78 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RayTheFireFly_38 (DB),

Start 36:
• Found in 5 of 78 (6.4%) of genes in pham
• Manual Annotations of this start: 3 of 65
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Brynnie_25 (AS1), Jamun_25 (AS1), Vulpecula_25 (AS1),

Start 37:
• Found in 16 of 78 (20.5%) of genes in pham
• Manual Annotations of this start: 13 of 65
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Avani_28 (F2), Bipolar_22 (F1), Che9d_28 (F2), Demsculpinboyz_28 (F2), Kenuha5_22 (F1), Kersh_23 (F1), Maruru_31 (FG), Mufasa8_29 (FG), Ogopogo_25 (F1), Pollywog_25 (F1), ShroomBoi_22 (F1), Sonali_32 (FG), Sunshine23_32 (FG), Yoshi_28 (F2),

Start 38:
• Found in 6 of 78 (7.7%) of genes in pham
• Manual Annotations of this start: 1 of 65
• Called 16.7% of time when present
• Phage (with cluster) where this start called: LonelyBoi_35 (CY7),

Start 39:
• Found in 6 of 78 (7.7%) of genes in pham
• Manual Annotations of this start: 4 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Apricot_38 (DN3), BENtherdunthat_38 (DN1), Crater_36 (DN3), Frickyeah_39 (DN1), Hugley_32 (CZ1), Phistory_39 (DN1),

Start 40:
• Found in 1 of 78 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abidatro_27 (AS1),

Start 41:
• Found in 31 of 78 (39.7%) of genes in pham
• Manual Annotations of this start: 17 of 65
• Called 58.1% of time when present
• Phage (with cluster) where this start called: AlexMinion_25 (AS3), Amanises_27 (AS1), Andrew_28 (AS3), Antrice_26 (AS2), Basilisk_26 (AS1), Catfish_31 (CU5), Chicken_26 (AS1), Cygnet_25 (AS2), Galaxy_26 (AS1), Kuleana_27 (AS2), Madiba_23 (F1), Niblet_26 (AS1), Orcanus_26 (AS1), Shambre1_30 (singleton), TaylorSipht_26 (AS1), ThetaBob_24 (F4), Toad24_27 (AS1), Zixiang_26 (AS1),

Start 42:
• Found in 3 of 78 (3.8%) of genes in pham
• Manual Annotations of this start: 3 of 65
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arbiter_43 (B2), Qyrzula_41 (B2), Rosebush_43 (B2),

Summary by clusters:

There are 20 clusters represented in this pham: AS3, F1, AS1, CZ1, CY7, B2, AS2, CZ2, DN2, DB, singleton, B6, DN1, DN3, FG, F2, F4, CU5, P6, I2,

Info for manual annotations of cluster AS1:
•Start number 36 was manually annotated 3 times for cluster AS1.

•Start number 40 was manually annotated 1 time for cluster AS1.
•Start number 41 was manually annotated 9 times for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 41 was manually annotated 3 times for cluster AS2.

Info for manual annotations of cluster AS3:
•Start number 41 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster B2:
•Start number 42 was manually annotated 3 times for cluster B2.

Info for manual annotations of cluster B6:
•Start number 31 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster CU5:
•Start number 41 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CY7:
•Start number 38 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ2:
•Start number 33 was manually annotated 13 times for cluster CZ2.

Info for manual annotations of cluster DB:
•Start number 35 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DN1:
•Start number 39 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 28 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 39 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster F1:
•Start number 37 was manually annotated 6 times for cluster F1.
•Start number 41 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 37 was manually annotated 4 times for cluster F2.

Info for manual annotations of cluster F4:
•Start number 41 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster FG:
•Start number 37 was manually annotated 3 times for cluster FG.

Info for manual annotations of cluster I2:
•Start number 23 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster P6:
•Start number 23 was manually annotated 1 time for cluster P6.
•Start number 25 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: 39HC_037 Start: 36987, Stop: 36790, Start Num: 31
Candidate Starts for 39HC_037:
(Start: 31 @36987 has 2 MA's), (Start: 38 @36975 has 1 MA's), (47, 36948), (50, 36930), (57, 36897),

Gene: 40BC_037 Start: 36987, Stop: 36790, Start Num: 31
Candidate Starts for 40BC_037:
(Start: 31 @36987 has 2 MA's), (Start: 38 @36975 has 1 MA's), (47, 36948), (50, 36930), (57, 36897),

Gene: Abidatro_27 Start: 19710, Stop: 19528, Start Num: 40
Candidate Starts for Abidatro_27:
(22, 19749), (Start: 40 @19710 has 1 MA's),

Gene: AlexMinion_25 Start: 18294, Stop: 18103, Start Num: 41
Candidate Starts for AlexMinion_25:
(6, 18519), (8, 18441), (9, 18429), (34, 18306), (Start: 41 @18294 has 17 MA's),

Gene: Amanises_27 Start: 20160, Stop: 19957, Start Num: 41
Candidate Starts for Amanises_27:
(Start: 41 @20160 has 17 MA's),

Gene: Andrew_28 Start: 19161, Stop: 18955, Start Num: 41
Candidate Starts for Andrew_28:
(Start: 41 @19161 has 17 MA's),

Gene: Antrice_26 Start: 19359, Stop: 19168, Start Num: 41
Candidate Starts for Antrice_26:
(16, 19434), (17, 19431), (Start: 41 @19359 has 17 MA's),

Gene: Apricot_38 Start: 28904, Stop: 28710, Start Num: 39
Candidate Starts for Apricot_38:
(Start: 21 @28946 has 2 MA's), (Start: 39 @28904 has 4 MA's), (46, 28883), (55, 28841), (59, 28793),

Gene: Arbiter_43 Start: 39491, Stop: 39312, Start Num: 42
Candidate Starts for Arbiter_43:
(26, 39518), (Start: 42 @39491 has 3 MA's), (43, 39488), (54, 39434), (58, 39401),

Gene: Avani_28 Start: 24082, Stop: 23903, Start Num: 37
Candidate Starts for Avani_28:
(Start: 25 @24106 has 1 MA's), (Start: 37 @24082 has 13 MA's), (Start: 41 @24076 has 17 MA's), (44, 24064), (47, 24049), (53, 24016), (63, 23920),

Gene: BENtherdunthat_38 Start: 28707, Stop: 28513, Start Num: 39
Candidate Starts for BENtherdunthat_38:
(Start: 21 @28749 has 2 MA's), (Start: 39 @28707 has 4 MA's), (46, 28686), (55, 28644), (59, 28596),

Gene: Basilisk_26 Start: 20189, Stop: 19986, Start Num: 41
Candidate Starts for Basilisk_26:
(Start: 41 @20189 has 17 MA's),

Gene: Bipolar_22 Start: 24352, Stop: 24173, Start Num: 37
Candidate Starts for Bipolar_22:
(Start: 25 @24376 has 1 MA's), (Start: 37 @24352 has 13 MA's), (Start: 41 @24346 has 17 MA's), (47, 24319), (53, 24286), (63, 24190),

Gene: Brynnie_25 Start: 19788, Stop: 19591, Start Num: 36
Candidate Starts for Brynnie_25:
(Start: 36 @19788 has 3 MA's),

Gene: Catfish_31 Start: 25984, Stop: 25784, Start Num: 41
Candidate Starts for Catfish_31:
(5, 26254), (19, 26041), (Start: 41 @25984 has 17 MA's), (44, 25972), (57, 25897),

Gene: Che9d_28 Start: 24090, Stop: 23911, Start Num: 37
Candidate Starts for Che9d_28:
(Start: 25 @24114 has 1 MA's), (Start: 37 @24090 has 13 MA's), (Start: 41 @24084 has 17 MA's), (47, 24057), (53, 24024), (63, 23928),

Gene: Chicken_26 Start: 20027, Stop: 19824, Start Num: 41
Candidate Starts for Chicken_26:
(Start: 41 @20027 has 17 MA's),

Gene: Clap_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Clap_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Crater_36 Start: 28423, Stop: 28229, Start Num: 39
Candidate Starts for Crater_36:
(Start: 21 @28465 has 2 MA's), (Start: 39 @28423 has 4 MA's), (45, 28405), (46, 28402), (55, 28360), (59, 28312), (61, 28300), (67, 28240),

Gene: Cygnet_25 Start: 19348, Stop: 19154, Start Num: 41
Candidate Starts for Cygnet_25:
(16, 19423), (17, 19420), (Start: 41 @19348 has 17 MA's),

Gene: Cynthia_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Cynthia_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Demsculpinboyz_28 Start: 24075, Stop: 23896, Start Num: 37
Candidate Starts for Demsculpinboyz_28:
(Start: 25 @24099 has 1 MA's), (Start: 37 @24075 has 13 MA's), (Start: 41 @24069 has 17 MA's), (47, 24042), (53, 24009), (63, 23913),

Gene: Ebert_31 Start: 25587, Stop: 25387, Start Num: 33
Candidate Starts for Ebert_31:
(Start: 33 @25587 has 13 MA's), (44, 25566), (47, 25551), (49, 25539), (57, 25503),

Gene: ForDig_37 Start: 36976, Stop: 36779, Start Num: 31

Candidate Starts for ForDig_37:
(Start: 31 @36976 has 2 MA's), (Start: 38 @36964 has 1 MA's), (43, 36958), (47, 36937), (50, 36919),

Gene: Frickyeah_39 Start: 28597, Stop: 28403, Start Num: 39
Candidate Starts for Frickyeah_39:
(Start: 21 @28639 has 2 MA's), (Start: 39 @28597 has 4 MA's), (46, 28576), (55, 28534), (59, 28486),

Gene: Galaxy_26 Start: 19656, Stop: 19465, Start Num: 41
Candidate Starts for Galaxy_26:
(Start: 41 @19656 has 17 MA's),

Gene: GemG_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for GemG_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Gizermo_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Gizermo_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Haley23_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Haley23_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Hosp_035 Start: 35180, Stop: 34983, Start Num: 31
Candidate Starts for Hosp_035:
(Start: 31 @35180 has 2 MA's), (Start: 38 @35168 has 1 MA's), (47, 35141), (50, 35123),

Gene: Hugley_32 Start: 29478, Stop: 29284, Start Num: 39
Candidate Starts for Hugley_32:
(Start: 21 @29520 has 2 MA's), (Start: 39 @29478 has 4 MA's), (55, 29415), (59, 29367), (61, 29355),

Gene: Jalleen_30 Start: 25302, Stop: 25102, Start Num: 33
Candidate Starts for Jalleen_30:
(Start: 33 @25302 has 13 MA's), (44, 25281), (47, 25266), (49, 25254), (57, 25218),

Gene: Jamun_25 Start: 19385, Stop: 19188, Start Num: 36
Candidate Starts for Jamun_25:
(1, 20447), (2, 20237), (3, 19964), (4, 19799), (Start: 36 @19385 has 3 MA's),

Gene: Jolie1_037 Start: 36967, Stop: 36770, Start Num: 31
Candidate Starts for Jolie1_037:
(Start: 31 @36967 has 2 MA's), (Start: 38 @36955 has 1 MA's), (43, 36949), (47, 36928), (50, 36910),

Gene: KayaCho_37 Start: 36966, Stop: 36766, Start Num: 31
Candidate Starts for KayaCho_37:
(Start: 31 @36966 has 2 MA's), (Start: 41 @36951 has 17 MA's), (47, 36924), (50, 36906),

Gene: Kenuha5_22 Start: 24468, Stop: 24289, Start Num: 37
Candidate Starts for Kenuha5_22:
(Start: 25 @24492 has 1 MA's), (Start: 37 @24468 has 13 MA's), (Start: 41 @24462 has 17 MA's), (47, 24435), (53, 24402), (63, 24306),

Gene: Kersh_23 Start: 24511, Stop: 24332, Start Num: 37

Candidate Starts for Kersh_23:
(Start: 25 @24535 has 1 MA's), (Start: 37 @24511 has 13 MA's), (Start: 41 @24505 has 17 MA's), (47, 24478), (53, 24445), (63, 24349),

Gene: Kuleana_27 Start: 19065, Stop: 18880, Start Num: 41
Candidate Starts for Kuleana_27:
(34, 19077), (Start: 41 @19065 has 17 MA's),

Gene: LonelyBoi_35 Start: 30866, Stop: 30690, Start Num: 38
Candidate Starts for LonelyBoi_35:
(Start: 38 @30866 has 1 MA's), (44, 30851), (49, 30824),

Gene: Lukepolites_69 Start: 44405, Stop: 44190, Start Num: 24
Candidate Starts for Lukepolites_69:
(24, 44405),

Gene: Madiba_23 Start: 24209, Stop: 24036, Start Num: 41
Candidate Starts for Madiba_23:
(Start: 25 @24239 has 1 MA's), (Start: 37 @24215 has 13 MA's), (Start: 41 @24209 has 17 MA's), (47, 24182), (53, 24149), (63, 24053),

Gene: Maruru_31 Start: 29698, Stop: 29486, Start Num: 37
Candidate Starts for Maruru_31:
(7, 29905), (29, 29716), (Start: 37 @29698 has 13 MA's),

Gene: Mocha12_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Mocha12_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Mufasa8_29 Start: 27032, Stop: 26823, Start Num: 37
Candidate Starts for Mufasa8_29:
(Start: 37 @27032 has 13 MA's),

Gene: Niblet_26 Start: 20027, Stop: 19824, Start Num: 41
Candidate Starts for Niblet_26:
(Start: 41 @20027 has 17 MA's),

Gene: Ogopogo_25 Start: 24675, Stop: 24496, Start Num: 37
Candidate Starts for Ogopogo_25:
(Start: 25 @24699 has 1 MA's), (Start: 37 @24675 has 13 MA's), (Start: 41 @24669 has 17 MA's), (47, 24642), (53, 24609), (63, 24513),

Gene: Orcanus_26 Start: 19951, Stop: 19748, Start Num: 41
Candidate Starts for Orcanus_26:
(Start: 41 @19951 has 17 MA's),

Gene: Phistory_39 Start: 29860, Stop: 29666, Start Num: 39
Candidate Starts for Phistory_39:
(Start: 21 @29902 has 2 MA's), (Start: 39 @29860 has 4 MA's), (46, 29839), (55, 29797), (59, 29749),

Gene: Pollywog_25 Start: 25545, Stop: 25366, Start Num: 37
Candidate Starts for Pollywog_25:

(Start: 25 @25569 has 1 MA's), (Start: 37 @25545 has 13 MA's), (Start: 41 @25539 has 17 MA's), (47, 25512), (53, 25479), (63, 25383),

Gene: Purky_30 Start: 26584, Stop: 26351, Start Num: 23
Candidate Starts for Purky_30:
(11, 26659), (12, 26656), (13, 26650), (Start: 21 @26593 has 2 MA's), (Start: 23 @26584 has 2 MA's), (32, 26560), (48, 26512), (59, 26434), (62, 26419),

Gene: Purky_36 Start: 28450, Stop: 28653, Start Num: 25
Candidate Starts for Purky_36:
(Start: 25 @28450 has 1 MA's), (Start: 31 @28462 has 2 MA's), (Start: 41 @28480 has 17 MA's), (58, 28588), (59, 28600),

Gene: Qyrzula_41 Start: 39560, Stop: 39381, Start Num: 42
Candidate Starts for Qyrzula_41:
(26, 39587), (Start: 42 @39560 has 3 MA's), (43, 39557), (54, 39503), (58, 39470),

Gene: RayTheFireFly_38 Start: 29870, Stop: 29667, Start Num: 35
Candidate Starts for RayTheFireFly_38:
(Start: 21 @29903 has 2 MA's), (Start: 35 @29870 has 1 MA's), (46, 29840), (52, 29807), (55, 29798), (59, 29750),

Gene: Rosebush_43 Start: 39530, Stop: 39351, Start Num: 42
Candidate Starts for Rosebush_43:
(26, 39557), (Start: 42 @39530 has 3 MA's), (43, 39527), (54, 39473), (58, 39440),

Gene: Sahara_29 Start: 25333, Stop: 25133, Start Num: 33
Candidate Starts for Sahara_29:
(Start: 33 @25333 has 13 MA's), (44, 25312), (47, 25297), (49, 25285), (57, 25249),

Gene: Savage_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Savage_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Sbash_32 Start: 28849, Stop: 28601, Start Num: 23
Candidate Starts for Sbash_32:
(11, 28924), (12, 28921), (13, 28915), (Start: 21 @28858 has 2 MA's), (Start: 23 @28849 has 2 MA's), (32, 28825), (59, 28699), (62, 28684), (69, 28609),

Gene: Shambre1_30 Start: 22778, Stop: 22578, Start Num: 41
Candidate Starts for Shambre1_30:
(Start: 41 @22778 has 17 MA's), (66, 22595),

Gene: ShroomBoi_22 Start: 24354, Stop: 24175, Start Num: 37
Candidate Starts for ShroomBoi_22:
(Start: 25 @24378 has 1 MA's), (Start: 37 @24354 has 13 MA's), (Start: 41 @24348 has 17 MA's), (44, 24336), (47, 24321), (53, 24288), (63, 24192),

Gene: Sleepyhead_33 Start: 26741, Stop: 26493, Start Num: 21
Candidate Starts for Sleepyhead_33:
(10, 26798), (Start: 21 @26741 has 2 MA's), (27, 26723), (51, 26651), (55, 26636),

Gene: Sonali_32 Start: 30335, Stop: 30120, Start Num: 37

Candidate Starts for Sonali_32:
(Start: 37 @30335 has 13 MA's),

Gene: Spooky_39 Start: 29741, Stop: 29508, Start Num: 28
Candidate Starts for Spooky_39:
(15, 29801), (20, 29771), (Start: 28 @29741 has 2 MA's), (30, 29738), (Start: 36 @29723 has 3 MA's), (64, 29549), (65, 29543),

Gene: Sproutie_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Sproutie_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Squiddly_40 Start: 31125, Stop: 30892, Start Num: 28
Candidate Starts for Squiddly_40:
(15, 31185), (20, 31155), (Start: 28 @31125 has 2 MA's), (30, 31122), (Start: 36 @31107 has 3 MA's), (64, 30933), (65, 30927),

Gene: Stuck_40 Start: 31182, Stop: 30949, Start Num: 23
Candidate Starts for Stuck_40:
(11, 31257), (12, 31254), (13, 31248), (Start: 21 @31191 has 2 MA's), (Start: 23 @31182 has 2 MA's), (32, 31158), (48, 31110), (59, 31032),

Gene: Sunshine23_32 Start: 29942, Stop: 29730, Start Num: 37
Candidate Starts for Sunshine23_32:
(Start: 37 @29942 has 13 MA's),

Gene: TaylorSipht_26 Start: 18969, Stop: 18775, Start Num: 41
Candidate Starts for TaylorSipht_26:
(Start: 41 @18969 has 17 MA's),

Gene: ThetaBob_24 Start: 24665, Stop: 24492, Start Num: 41
Candidate Starts for ThetaBob_24:
(Start: 25 @24695 has 1 MA's), (Start: 37 @24671 has 13 MA's), (Start: 41 @24665 has 17 MA's), (47, 24638), (53, 24605), (63, 24509),

Gene: Toad24_27 Start: 20160, Stop: 19957, Start Num: 41
Candidate Starts for Toad24_27:
(Start: 41 @20160 has 17 MA's),

Gene: TuertoX_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for TuertoX_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Vasanti_31 Start: 26204, Stop: 25965, Start Num: 33
Candidate Starts for Vasanti_31:
(Start: 33 @26204 has 13 MA's), (44, 26183), (47, 26168), (49, 26156), (57, 26120), (70, 25973),

Gene: Vulpecula_25 Start: 19383, Stop: 19186, Start Num: 36
Candidate Starts for Vulpecula_25:
(Start: 36 @19383 has 3 MA's),

Gene: Whack_33 Start: 28160, Stop: 27924, Start Num: 21
Candidate Starts for Whack_33:

(14, 28187), (Start: 21 @28160 has 2 MA's), (56, 28040),

Gene: Whiteclaw_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Whiteclaw_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Yinzer_30 Start: 25663, Stop: 25463, Start Num: 33
Candidate Starts for Yinzer_30:
(Start: 33 @25663 has 13 MA's), (44, 25642), (47, 25627), (49, 25615), (57, 25579),

Gene: Yoshi_28 Start: 24080, Stop: 23901, Start Num: 37
Candidate Starts for Yoshi_28:
(Start: 25 @24104 has 1 MA's), (Start: 37 @24080 has 13 MA's), (Start: 41 @24074 has 17 MA's), (47, 24047), (53, 24014), (63, 23918),

Gene: Zixiang_26 Start: 20028, Stop: 19825, Start Num: 41
Candidate Starts for Zixiang_26:
(Start: 41 @20028 has 17 MA's),

Gene: phiAsp2_39 Start: 33131, Stop: 33403, Start Num: 18
Candidate Starts for phiAsp2_39:
(14, 33095), (18, 33131), (24, 33155), (Start: 41 @33191 has 17 MA's), (53, 33251), (60, 33317), (68, 33392),