Pham 347481


1: NoShow_6
2: FF47_08 + 2
3: LongHai_9 + 2
4: JacoRen57_5
5: SteamedHams_9 + 7
6: CocoaPuff_6 + 7
7: Survivors_9 + 1
8: Fribs8_8
9: Lauer_6 + 2
10: Horseradish_8 + 8
11: Sopespian_7 + 17
12: Emalyn_6 + 3
13: GiKK_10
14: Elinal_8 + 1
15: Zareef_9
16: Cleo_7 + 2
17: Nodigi_9 + 1
18: Yakult_8
19: Cozz_7
20: Mayweather_8 + 6
21: Nina_8
22: Malvina_9
23: Button_8
24: Jamzy_10
25: RanchParmCat_10
26: HippoPololi_9
27: Wallaby_10
28: Wolfwood_9 + 1
29: Azira_9
30: Margaret_10
31: Hexbug_9

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 347481 Report

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

Pham number 347481 has 91 members, 20 are drafts.

Phages represented in each track:
• Track 1 : NoShow_6
• Track 2 : FF47_08, Muddy_8, Maco6_6
• Track 3 : LongHai_9, 8UZL_8, Salvus_9
• Track 4 : JacoRen57_5
• Track 5 : SteamedHams_9, CanesSauce_7, Tolls_9, CaramelLatte_7, AndPeggy_6, BillDoor_9, Yarn_6, ChocoMunchkin_7
• Track 6 : CocoaPuff_6, Tarnish_7, Balloona_6, Bavilard_7, Vine_8, SummitAcademy_6, Yucky_7, PotPie_7
• Track 7 : Survivors_9, Nibbles_9
• Track 8 : Fribs8_8
• Track 9 : Lauer_6, BigChungus_6, Feastonyeet_6
• Track 10 : Horseradish_8, Blondies_8, SweatNTears_9, Biskit_8, MScarn_9, Troje_7, SketchMex_6, Buttrmlkdreams_7, Yummy_8
• Track 11 : Sopespian_7, RSchmailzl_8, RADical_8, Socotra_8, Quasar_7, ChickenTender_9, Bubble_7, MunkgeeRoachy_7, Carsonalex_8, Agatha_7, RedBaron_9, Typhonomachy_7, GoldHunter_7, PsychoKiller_7, Starburst_8, Burnsey_7, Eliott_7, Axym_7
• Track 12 : Emalyn_6, Amok_6, GTE2_05, AikoCarson_6
• Track 13 : GiKK_10
• Track 14 : Elinal_8, KayGee_7
• Track 15 : Zareef_9
• Track 16 : Cleo_7, Gibbous_7, Dre3_7
• Track 17 : Nodigi_9, Orla_9
• Track 18 : Yakult_8
• Track 19 : Cozz_7
• Track 20 : Mayweather_8, McDazzle_6, MAnor_7, SheckWes_6, CherryonLim_8, ElJefes_6, Pons_7
• Track 21 : Nina_8
• Track 22 : Malvina_9
• Track 23 : Button_8
• Track 24 : Jamzy_10
• Track 25 : RanchParmCat_10
• Track 26 : HippoPololi_9
• Track 27 : Wallaby_10
• Track 28 : Wolfwood_9, MaVan_9
• Track 29 : Azira_9
• Track 30 : Margaret_10

• Track 31 : Hexbug_9

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

The start number called the most often in the published annotations is 22, it was called in 37 of the 71 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Agatha_7, AikoCarson_6, Amok_6, AndPeggy_6, Axym_7, Balloona_6, Bavilard_7, BillDoor_9, Biskit_8, Blondies_8, Bubble_7, Burnsey_7, Buttrmlkdreams_7, CanesSauce_7, CaramelLatte_7, Carsonalex_8, ChickenTender_9, ChocoMunchkin_7, CocoaPuff_6, Cozz_7, Eliott_7, Emalyn_6, GTE2_05, GoldHunter_7, Horseradish_8, MScarn_9, MunkgeeRoachy_7, Nina_8, PotPie_7, PsychoKiller_7, Quasar_7, RADical_8, RSchmailzl_8, RedBaron_9, SketchMex_6, Socotra_8, Sopespian_7, Starburst_8, SteamedHams_9, SummitAcademy_6, SweatNTears_9, Tarnish_7, Tolls_9, Troje_7, Typhonomachy_7, Vine_8, Yarn_6, Yucky_7, Yummy_8,

Genes that have the "Most Annotated" start but do not call it:
• BigChungus_6, Feastonyeet_6, Lauer_6,

Genes that do not have the "Most Annotated" start:
• 8UZL_8, Azira_9, Button_8, CherryonLim_8, Cleo_7, Dre3_7, ElJefes_6, Elinal_8, FF47_08, Fribs8_8, GiKK_10, Gibbous_7, Hexbug_9, HippoPololi_9, JacoRen57_5, Jamzy_10, KayGee_7, LongHai_9, MAnor_7, MaVan_9, Maco6_6, Malvina_9, Margaret_10, Mayweather_8, McDazzle_6, Muddy_8, Nibbles_9, NoShow_6, Nodigi_9, Orla_9, Pons_7, RanchParmCat_10, Salvus_9, SheckWes_6, Survivors_9, Wallaby_10, Wolfwood_9, Yakult_8, Zareef_9,

Summary by start number:

Start 8:
• Found in 1 of 91 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NoShow_6 (AB),

Start 9:
• Found in 6 of 91 (6.6%) of genes in pham
• Manual Annotations of this start: 2 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 8UZL_8 (AB), FF47_08 (AB), LongHai_9 (AB), Maco6_6 (AB), Muddy_8 (AB), Salvus_9 (AB),

Start 11:
• Found in 1 of 91 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JacoRen57_5 (AB),

Start 12:
• Found in 11 of 91 (12.1%) of genes in pham
• Manual Annotations of this start: 3 of 71
• Called 27.3% of time when present
• Phage (with cluster) where this start called: BigChungus_6 (CT), Feastonyeet_6 (CT), Lauer_6 (CT),

Start 13:
• Found in 10 of 91 (11.0%) of genes in pham
• Manual Annotations of this start: 7 of 71
• Called 70.0% of time when present
• Phage (with cluster) where this start called: Azira_9 (CT), HippoPololi_9 (CT), MaVan_9 (CT), Nibbles_9 (CT), Survivors_9 (CT), Wolfwood_9 (CT), Zareef_9 (CT),

Start 14:
• Found in 10 of 91 (11.0%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 10.0% of time when present
• Phage (with cluster) where this start called: Fribs8_8 (CT),

Start 16:
• Found in 8 of 91 (8.8%) of genes in pham
• Manual Annotations of this start: 8 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Button_8 (CT), GiKK_10 (CT), Hexbug_9 (CT), Jamzy_10 (CT), Margaret_10 (CT), Nodigi_9 (CT), Orla_9 (CT), RanchParmCat_10 (CT),

Start 17:
• Found in 13 of 91 (14.3%) of genes in pham
• Manual Annotations of this start: 3 of 71
• Called 38.5% of time when present
• Phage (with cluster) where this start called: Cleo_7 (CT), Dre3_7 (CT), Gibbous_7 (CT), Malvina_9 (CT), Wallaby_10 (CT),

Start 18:
• Found in 1 of 91 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yakult_8 (CT),

Start 21:
• Found in 15 of 91 (16.5%) of genes in pham
• Manual Annotations of this start: 7 of 71
• Called 60.0% of time when present
• Phage (with cluster) where this start called: CherryonLim_8 (CT), ElJefes_6 (CT), Elinal_8 (CT), KayGee_7 (CT), MAnor_7 (CT), Mayweather_8 (CT), McDazzle_6 (CT), Pons_7 (CT), SheckWes_6 (CT),

Start 22:
• Found in 52 of 91 (57.1%) of genes in pham
• Manual Annotations of this start: 37 of 71
• Called 94.2% of time when present

• Phage (with cluster) where this start called: Agatha_7 (CT), AikoCarson_6 (CT), Amok_6 (CT), AndPeggy_6 (CT), Axym_7 (CT), Balloona_6 (CT), Bavilard_7 (CT), BillDoor_9 (CT), Biskit_8 (CT), Blondies_8 (CT), Bubble_7 (CT), Burnsey_7 (CT), Buttrmlkdreams_7 (CT), CanesSauce_7 (CT), CaramelLatte_7 (CT), Carsonalex_8 (CT), ChickenTender_9 (CT), ChocoMunchkin_7 (CT), CocoaPuff_6 (CT), Cozz_7 (CT), Eliott_7 (CT), Emalyn_6 (CT), GTE2_05 (CT), GoldHunter_7 (CT), Horseradish_8 (CT), MScarn_9 (CT), MunkgeeRoachy_7 (CT), Nina_8 (CT), PotPie_7 (CT), PsychoKiller_7 (CT), Quasar_7 (CT), RADical_8 (CT), RSchmailzl_8 (CT), RedBaron_9 (CT), SketchMex_6 (CT), Socotra_8 (CT), Sopespian_7 (CT), Starburst_8 (CT), SteamedHams_9 (CT), SummitAcademy_6 (CT), SweatNTears_9 (CT), Tarnish_7 (CT), Tolls_9 (CT), Troje_7 (CT), Typhonomachy_7 (CT), Vine_8 (CT), Yarn_6 (CT), Yucky_7 (CT), Yummy_8 (CT),

Summary by clusters:

There are 2 clusters represented in this pham: AB, CT,

Info for manual annotations of cluster AB:
•Start number 8 was manually annotated 1 time for cluster AB.
•Start number 9 was manually annotated 2 times for cluster AB.
•Start number 11 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster CT:
•Start number 12 was manually annotated 3 times for cluster CT.
•Start number 13 was manually annotated 7 times for cluster CT.
•Start number 14 was manually annotated 1 time for cluster CT.
•Start number 16 was manually annotated 8 times for cluster CT.
•Start number 17 was manually annotated 3 times for cluster CT.
•Start number 18 was manually annotated 1 time for cluster CT.
•Start number 21 was manually annotated 7 times for cluster CT.
•Start number 22 was manually annotated 37 times for cluster CT.

Gene Information:

Gene: 8UZL_8 Start: 5809, Stop: 6405, Start Num: 9
Candidate Starts for 8UZL_8:
(Start: 9 @5809 has 2 MA's), (Start: 21 @5932 has 7 MA's), (25, 6001), (33, 6151), (37, 6190),

Gene: Agatha_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Agatha_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: AikoCarson_6 Start: 4622, Stop: 5080, Start Num: 22
Candidate Starts for AikoCarson_6:
(Start: 22 @4622 has 37 MA's), (30, 4748), (35, 4853), (49, 5054),

Gene: Amok_6 Start: 4623, Stop: 5081, Start Num: 22
Candidate Starts for Amok_6:
(Start: 22 @4623 has 37 MA's), (30, 4749), (35, 4854), (49, 5055),

Gene: AndPeggy_6 Start: 4931, Stop: 5392, Start Num: 22

Candidate Starts for AndPeggy_6:
(Start: 22 @4931 has 37 MA's), (30, 5057), (35, 5162), (42, 5207), (49, 5363),

Gene: Axym_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Axym_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Azira_9 Start: 5719, Stop: 6273, Start Num: 13
Candidate Starts for Azira_9:
(4, 5557), (10, 5683), (Start: 13 @5719 has 7 MA's), (Start: 14 @5740 has 1 MA's), (Start: 17 @5761 has 3 MA's), (38, 6073), (39, 6076), (50, 6250), (51, 6253),

Gene: Balloona_6 Start: 4637, Stop: 5071, Start Num: 22
Candidate Starts for Balloona_6:
(6, 4502), (Start: 12 @4568 has 3 MA's), (Start: 22 @4637 has 37 MA's), (23, 4667), (32, 4826), (45, 4955),

Gene: Bavilard_7 Start: 5413, Stop: 5847, Start Num: 22
Candidate Starts for Bavilard_7:
(6, 5278), (Start: 12 @5344 has 3 MA's), (Start: 22 @5413 has 37 MA's), (23, 5443), (32, 5602), (45, 5731),

Gene: BigChungus_6 Start: 4593, Stop: 5096, Start Num: 12
Candidate Starts for BigChungus_6:
(6, 4527), (Start: 12 @4593 has 3 MA's), (Start: 22 @4662 has 37 MA's), (23, 4692), (32, 4851), (45, 4980),

Gene: BillDoor_9 Start: 4896, Stop: 5357, Start Num: 22
Candidate Starts for BillDoor_9:
(Start: 22 @4896 has 37 MA's), (30, 5022), (35, 5127), (42, 5172), (49, 5328),

Gene: Biskit_8 Start: 4888, Stop: 5349, Start Num: 22
Candidate Starts for Biskit_8:
(Start: 22 @4888 has 37 MA's), (35, 5119), (40, 5152), (49, 5320),

Gene: Blondies_8 Start: 4889, Stop: 5350, Start Num: 22
Candidate Starts for Blondies_8:
(Start: 22 @4889 has 37 MA's), (35, 5120), (40, 5153), (49, 5321),

Gene: Bubble_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Bubble_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Burnsey_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Burnsey_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Button_8 Start: 4950, Stop: 5435, Start Num: 16
Candidate Starts for Button_8:
(7, 4845), (Start: 16 @4950 has 8 MA's), (24, 5034), (33, 5208), (41, 5253), (48, 5355), (49, 5406), (51, 5415),

Gene: Buttrmlkdreams_7 Start: 4889, Stop: 5350, Start Num: 22

Candidate Starts for Buttrmlkdreams_7:
(Start: 22 @4889 has 37 MA's), (35, 5120), (40, 5153), (49, 5321),

Gene: CanesSauce_7 Start: 4931, Stop: 5392, Start Num: 22
Candidate Starts for CanesSauce_7:
(Start: 22 @4931 has 37 MA's), (30, 5057), (35, 5162), (42, 5207), (49, 5363),

Gene: CaramelLatte_7 Start: 4931, Stop: 5392, Start Num: 22
Candidate Starts for CaramelLatte_7:
(Start: 22 @4931 has 37 MA's), (30, 5057), (35, 5162), (42, 5207), (49, 5363),

Gene: Carsonalex_8 Start: 4951, Stop: 5415, Start Num: 22
Candidate Starts for Carsonalex_8:
(Start: 22 @4951 has 37 MA's), (35, 5182), (49, 5386),

Gene: CherryonLim_8 Start: 5387, Stop: 5818, Start Num: 21
Candidate Starts for CherryonLim_8:
(19, 5372), (Start: 21 @5387 has 7 MA's), (23, 5414), (31, 5564), (32, 5573), (45, 5702),

Gene: ChickenTender_9 Start: 4942, Stop: 5406, Start Num: 22
Candidate Starts for ChickenTender_9:
(Start: 22 @4942 has 37 MA's), (35, 5173), (49, 5377),

Gene: ChocoMunchkin_7 Start: 4931, Stop: 5392, Start Num: 22
Candidate Starts for ChocoMunchkin_7:
(Start: 22 @4931 has 37 MA's), (30, 5057), (35, 5162), (42, 5207), (49, 5363),

Gene: Cleo_7 Start: 5059, Stop: 5571, Start Num: 17
Candidate Starts for Cleo_7:
(Start: 17 @5059 has 3 MA's), (34, 5332), (36, 5344), (38, 5371), (50, 5548), (51, 5551),

Gene: CocoaPuff_6 Start: 4637, Stop: 5071, Start Num: 22
Candidate Starts for CocoaPuff_6:
(6, 4502), (Start: 12 @4568 has 3 MA's), (Start: 22 @4637 has 37 MA's), (23, 4667), (32, 4826), (45, 4955),

Gene: Cozz_7 Start: 4895, Stop: 5359, Start Num: 22
Candidate Starts for Cozz_7:
(6, 4757), (Start: 22 @4895 has 37 MA's), (35, 5126), (49, 5330),

Gene: Dre3_7 Start: 5006, Stop: 5518, Start Num: 17
Candidate Starts for Dre3_7:
(Start: 17 @5006 has 3 MA's), (34, 5279), (36, 5291), (38, 5318), (50, 5495), (51, 5498),

Gene: ElJefes_6 Start: 5107, Stop: 5541, Start Num: 21
Candidate Starts for ElJefes_6:
(19, 5092), (Start: 21 @5107 has 7 MA's), (23, 5137), (31, 5287), (32, 5296), (45, 5425),

Gene: Elinal_8 Start: 4639, Stop: 5073, Start Num: 21
Candidate Starts for Elinal_8:
(19, 4624), (Start: 21 @4639 has 7 MA's), (23, 4669), (32, 4828), (45, 4957),

Gene: Eliott_7 Start: 4894, Stop: 5358, Start Num: 22

Candidate Starts for Eliott_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Emalyn_6 Start: 4622, Stop: 5080, Start Num: 22
Candidate Starts for Emalyn_6:
(Start: 22 @4622 has 37 MA's), (30, 4748), (35, 4853), (49, 5054),

Gene: FF47_08 Start: 5790, Stop: 6386, Start Num: 9
Candidate Starts for FF47_08:
(Start: 9 @5790 has 2 MA's), (Start: 21 @5913 has 7 MA's), (33, 6132), (37, 6171),

Gene: Feastonyeet_6 Start: 4593, Stop: 5096, Start Num: 12
Candidate Starts for Feastonyeet_6:
(6, 4527), (Start: 12 @4593 has 3 MA's), (Start: 22 @4662 has 37 MA's), (23, 4692), (32, 4851), (45, 4980),

Gene: Fribs8_8 Start: 5534, Stop: 6073, Start Num: 14
Candidate Starts for Fribs8_8:
(Start: 13 @5513 has 7 MA's), (Start: 14 @5534 has 1 MA's), (15, 5549), (Start: 17 @5555 has 3 MA's), (34, 5834), (36, 5846), (38, 5873), (50, 6050), (51, 6053),

Gene: GTE2_05 Start: 4581, Stop: 5042, Start Num: 22
Candidate Starts for GTE2_05:
(Start: 22 @4581 has 37 MA's), (30, 4707), (35, 4812), (49, 5013),

Gene: GiKK_10 Start: 5253, Stop: 5738, Start Num: 16
Candidate Starts for GiKK_10:
(7, 5148), (Start: 16 @5253 has 8 MA's), (24, 5337), (33, 5511), (41, 5556), (47, 5646), (48, 5658), (49, 5709), (51, 5718),

Gene: Gibbous_7 Start: 5006, Stop: 5518, Start Num: 17
Candidate Starts for Gibbous_7:
(Start: 17 @5006 has 3 MA's), (34, 5279), (36, 5291), (38, 5318), (50, 5495), (51, 5498),

Gene: GoldHunter_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for GoldHunter_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Hexbug_9 Start: 5939, Stop: 6421, Start Num: 16
Candidate Starts for Hexbug_9:
(Start: 16 @5939 has 8 MA's), (24, 6020), (41, 6239), (48, 6341), (49, 6392), (51, 6401),

Gene: HippoPololi_9 Start: 5605, Stop: 6162, Start Num: 13
Candidate Starts for HippoPololi_9:
(Start: 13 @5605 has 7 MA's), (Start: 14 @5626 has 1 MA's), (Start: 17 @5647 has 3 MA's), (36, 5935), (38, 5962), (50, 6139), (51, 6142),

Gene: Horseradish_8 Start: 4795, Stop: 5256, Start Num: 22
Candidate Starts for Horseradish_8:
(Start: 22 @4795 has 37 MA's), (35, 5026), (40, 5059), (49, 5227),

Gene: JacoRen57_5 Start: 4850, Stop: 5443, Start Num: 11
Candidate Starts for JacoRen57_5:

(Start: 11 @4850 has 1 MA's), (25, 5021), (27, 5042), (28, 5072), (38, 5234), (46, 5324),

Gene: Jamzy_10 Start: 5261, Stop: 5749, Start Num: 16
Candidate Starts for Jamzy_10:
(5, 5141), (7, 5156), (Start: 16 @5261 has 8 MA's), (24, 5348), (33, 5522), (41, 5567), (47, 5657), (48, 5669), (49, 5720), (51, 5729),

Gene: KayGee_7 Start: 4639, Stop: 5073, Start Num: 21
Candidate Starts for KayGee_7:
(19, 4624), (Start: 21 @4639 has 7 MA's), (23, 4669), (32, 4828), (45, 4957),

Gene: Lauer_6 Start: 4623, Stop: 5126, Start Num: 12
Candidate Starts for Lauer_6:
(6, 4557), (Start: 12 @4623 has 3 MA's), (Start: 22 @4692 has 37 MA's), (23, 4722), (32, 4881), (45, 5010),

Gene: LongHai_9 Start: 6114, Stop: 6710, Start Num: 9
Candidate Starts for LongHai_9:
(Start: 9 @6114 has 2 MA's), (Start: 21 @6237 has 7 MA's), (25, 6306), (33, 6456), (37, 6495),

Gene: MAnor_7 Start: 4636, Stop: 5067, Start Num: 21
Candidate Starts for MAnor_7:
(19, 4621), (Start: 21 @4636 has 7 MA's), (23, 4663), (31, 4813), (32, 4822), (45, 4951),

Gene: MScarn_9 Start: 4889, Stop: 5350, Start Num: 22
Candidate Starts for MScarn_9:
(Start: 22 @4889 has 37 MA's), (35, 5120), (40, 5153), (49, 5321),

Gene: MaVan_9 Start: 5719, Stop: 6273, Start Num: 13
Candidate Starts for MaVan_9:
(10, 5683), (Start: 13 @5719 has 7 MA's), (Start: 14 @5740 has 1 MA's), (Start: 17 @5761 has 3 MA's), (38, 6073), (39, 6076), (50, 6250), (51, 6253),

Gene: Maco6_6 Start: 5069, Stop: 5665, Start Num: 9
Candidate Starts for Maco6_6:
(Start: 9 @5069 has 2 MA's), (Start: 21 @5192 has 7 MA's), (33, 5411), (37, 5450),

Gene: Malvina_9 Start: 5650, Stop: 6165, Start Num: 17
Candidate Starts for Malvina_9:
(Start: 13 @5608 has 7 MA's), (Start: 14 @5629 has 1 MA's), (Start: 17 @5650 has 3 MA's), (36, 5938), (38, 5965), (50, 6142), (51, 6145),

Gene: Margaret_10 Start: 5637, Stop: 6125, Start Num: 16
Candidate Starts for Margaret_10:
(5, 5517), (7, 5532), (Start: 16 @5637 has 8 MA's), (24, 5724), (29, 5796), (33, 5898), (41, 5943), (43, 5952), (48, 6045), (49, 6096), (51, 6105),

Gene: Mayweather_8 Start: 5257, Stop: 5688, Start Num: 21
Candidate Starts for Mayweather_8:
(19, 5242), (Start: 21 @5257 has 7 MA's), (23, 5284), (31, 5434), (32, 5443), (45, 5572),

Gene: McDazzle_6 Start: 5101, Stop: 5535, Start Num: 21
Candidate Starts for McDazzle_6:

(19, 5086), (Start: 21 @5101 has 7 MA's), (23, 5131), (31, 5281), (32, 5290), (45, 5419),

Gene: Muddy_8 Start: 6022, Stop: 6618, Start Num: 9
Candidate Starts for Muddy_8:
(Start: 9 @6022 has 2 MA's), (Start: 21 @6145 has 7 MA's), (33, 6364), (37, 6403),

Gene: MunkgeeRoachy_7 Start: 4942, Stop: 5406, Start Num: 22
Candidate Starts for MunkgeeRoachy_7:
(Start: 22 @4942 has 37 MA's), (35, 5173), (49, 5377),

Gene: Nibbles_9 Start: 5719, Stop: 6273, Start Num: 13
Candidate Starts for Nibbles_9:
(10, 5683), (Start: 13 @5719 has 7 MA's), (Start: 14 @5740 has 1 MA's), (Start: 17 @5761 has 3 MA's), (50, 6250), (51, 6253),

Gene: Nina_8 Start: 5928, Stop: 6392, Start Num: 22
Candidate Starts for Nina_8:
(19, 5910), (20, 5922), (Start: 22 @5928 has 37 MA's), (35, 6159), (49, 6363),

Gene: NoShow_6 Start: 5050, Stop: 5676, Start Num: 8
Candidate Starts for NoShow_6:
(Start: 8 @5050 has 1 MA's), (26, 5263), (35, 5422), (42, 5479), (44, 5506),

Gene: Nodigi_9 Start: 5940, Stop: 6416, Start Num: 16
Candidate Starts for Nodigi_9:
(Start: 16 @5940 has 8 MA's), (24, 6015), (41, 6234), (43, 6243), (48, 6336), (49, 6387), (51, 6396),

Gene: Orla_9 Start: 5939, Stop: 6421, Start Num: 16
Candidate Starts for Orla_9:
(Start: 16 @5939 has 8 MA's), (24, 6020), (41, 6239), (43, 6248), (48, 6341), (49, 6392), (51, 6401),

Gene: Pons_7 Start: 4636, Stop: 5067, Start Num: 21
Candidate Starts for Pons_7:
(19, 4621), (Start: 21 @4636 has 7 MA's), (23, 4663), (31, 4813), (32, 4822), (45, 4951),

Gene: PotPie_7 Start: 5496, Stop: 5930, Start Num: 22
Candidate Starts for PotPie_7:
(6, 5361), (Start: 12 @5427 has 3 MA's), (Start: 22 @5496 has 37 MA's), (23, 5526), (32, 5685), (45, 5814),

Gene: PsychoKiller_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for PsychoKiller_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Quasar_7 Start: 5515, Stop: 5979, Start Num: 22
Candidate Starts for Quasar_7:
(Start: 22 @5515 has 37 MA's), (35, 5746), (49, 5950),

Gene: RADical_8 Start: 4895, Stop: 5359, Start Num: 22
Candidate Starts for RADical_8:
(Start: 22 @4895 has 37 MA's), (35, 5126), (49, 5330),

Gene: RSchmailzl_8 Start: 5035, Stop: 5499, Start Num: 22

Candidate Starts for RSchmailzl_8:
(Start: 22 @5035 has 37 MA's), (35, 5266), (49, 5470),

Gene: RanchParmCat_10 Start: 5637, Stop: 6125, Start Num: 16
Candidate Starts for RanchParmCat_10:
(5, 5517), (7, 5532), (Start: 16 @5637 has 8 MA's), (24, 5724), (29, 5796), (33, 5898), (43, 5952), (47, 6033), (48, 6045), (49, 6096), (51, 6105),

Gene: RedBaron_9 Start: 4939, Stop: 5403, Start Num: 22
Candidate Starts for RedBaron_9:
(Start: 22 @4939 has 37 MA's), (35, 5170), (49, 5374),

Gene: Salvus_9 Start: 6114, Stop: 6710, Start Num: 9
Candidate Starts for Salvus_9:
(Start: 9 @6114 has 2 MA's), (Start: 21 @6237 has 7 MA's), (25, 6306), (33, 6456), (37, 6495),

Gene: SheckWes_6 Start: 4636, Stop: 5067, Start Num: 21
Candidate Starts for SheckWes_6:
(19, 4621), (Start: 21 @4636 has 7 MA's), (23, 4663), (31, 4813), (32, 4822), (45, 4951),

Gene: SketchMex_6 Start: 4888, Stop: 5349, Start Num: 22
Candidate Starts for SketchMex_6:
(Start: 22 @4888 has 37 MA's), (35, 5119), (40, 5152), (49, 5320),

Gene: Socotra_8 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Socotra_8:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Sopespian_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Sopespian_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Starburst_8 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Starburst_8:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: SteamedHams_9 Start: 4931, Stop: 5392, Start Num: 22
Candidate Starts for SteamedHams_9:
(Start: 22 @4931 has 37 MA's), (30, 5057), (35, 5162), (42, 5207), (49, 5363),

Gene: SummitAcademy_6 Start: 4711, Stop: 5145, Start Num: 22
Candidate Starts for SummitAcademy_6:
(6, 4576), (Start: 12 @4642 has 3 MA's), (Start: 22 @4711 has 37 MA's), (23, 4741), (32, 4900), (45, 5029),

Gene: Survivors_9 Start: 5573, Stop: 6127, Start Num: 13
Candidate Starts for Survivors_9:
(10, 5537), (Start: 13 @5573 has 7 MA's), (Start: 14 @5594 has 1 MA's), (Start: 17 @5615 has 3 MA's), (50, 6104), (51, 6107),

Gene: SweatNTears_9 Start: 5415, Stop: 5876, Start Num: 22
Candidate Starts for SweatNTears_9:
(Start: 22 @5415 has 37 MA's), (35, 5646), (40, 5679), (49, 5847),

Gene: Tarnish_7 Start: 5010, Stop: 5444, Start Num: 22
Candidate Starts for Tarnish_7:
(6, 4875), (Start: 12 @4941 has 3 MA's), (Start: 22 @5010 has 37 MA's), (23, 5040), (32, 5199), (45, 5328),

Gene: Tolls_9 Start: 4935, Stop: 5396, Start Num: 22
Candidate Starts for Tolls_9:
(Start: 22 @4935 has 37 MA's), (30, 5061), (35, 5166), (42, 5211), (49, 5367),

Gene: Troje_7 Start: 4889, Stop: 5350, Start Num: 22
Candidate Starts for Troje_7:
(Start: 22 @4889 has 37 MA's), (35, 5120), (40, 5153), (49, 5321),

Gene: Typhonomachy_7 Start: 4894, Stop: 5358, Start Num: 22
Candidate Starts for Typhonomachy_7:
(Start: 22 @4894 has 37 MA's), (35, 5125), (49, 5329),

Gene: Vine_8 Start: 5635, Stop: 6069, Start Num: 22
Candidate Starts for Vine_8:
(6, 5500), (Start: 12 @5566 has 3 MA's), (Start: 22 @5635 has 37 MA's), (23, 5665), (32, 5824), (45, 5953),

Gene: Wallaby_10 Start: 5760, Stop: 6272, Start Num: 17
Candidate Starts for Wallaby_10:
(10, 5682), (Start: 13 @5718 has 7 MA's), (Start: 14 @5739 has 1 MA's), (Start: 17 @5760 has 3 MA's), (38, 6072), (39, 6075), (50, 6249), (51, 6252),

Gene: Wolfwood_9 Start: 5718, Stop: 6272, Start Num: 13
Candidate Starts for Wolfwood_9:
(10, 5682), (Start: 13 @5718 has 7 MA's), (Start: 14 @5739 has 1 MA's), (Start: 17 @5760 has 3 MA's), (38, 6072), (39, 6075), (50, 6249), (51, 6252),

Gene: Yakult_8 Start: 4830, Stop: 5309, Start Num: 18
Candidate Starts for Yakult_8:
(1, 4506), (2, 4521), (3, 4545), (4, 4617), (10, 4743), (Start: 18 @4830 has 1 MA's), (24, 4905), (41, 5124), (43, 5133), (50, 5286),

Gene: Yarn_6 Start: 4925, Stop: 5386, Start Num: 22
Candidate Starts for Yarn_6:
(Start: 22 @4925 has 37 MA's), (30, 5051), (35, 5156), (42, 5201), (49, 5357),

Gene: Yucky_7 Start: 5496, Stop: 5930, Start Num: 22
Candidate Starts for Yucky_7:
(6, 5361), (Start: 12 @5427 has 3 MA's), (Start: 22 @5496 has 37 MA's), (23, 5526), (32, 5685), (45, 5814),

Gene: Yummy_8 Start: 4795, Stop: 5256, Start Num: 22
Candidate Starts for Yummy_8:
(Start: 22 @4795 has 37 MA's), (35, 5026), (40, 5059), (49, 5227),

Gene: Zareef_9 Start: 5720, Stop: 6274, Start Num: 13
Candidate Starts for Zareef_9:

(10, 5684), (Start: 13 @5720 has 7 MA's), (Start: 14 @5741 has 1 MA's), (Start: 17 @5762 has 3 MA's), (38, 6074), (39, 6077), (50, 6251), (51, 6254),