Pham 347608


1: Lton_3
2: Pepperoni_3
3: Faith5x5_3
4: Moosehead_3
5: OneDirection_3
6: DonkeyMan_3 + 3
7: DearBasketball_3 + 1
8: Heinz_3
9: Reyja_4 + 1
10: Xeno_3 + 2
11: Rubeelu_3
12: Fulbright_3 + 22
13: Snekmaggedon_3 + 14
14: Tessdabest_2 + 1
15: Kevin1_3 + 2
16: SkinnyPete_3 + 1
17: Purgamenstris_3
18: Gudmit_4

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 347608 Report

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

Pham number 347608 has 65 members, 5 are drafts.

Phages represented in each track:
• Track 1 : Lton_3
• Track 2 : Pepperoni_3
• Track 3 : Faith5x5_3
• Track 4 : Moosehead_3
• Track 5 : OneDirection_3
• Track 6 : DonkeyMan_3, Jojo24_3, Tarzan_3, Hibiscus_3
• Track 7 : DearBasketball_3, Santhid_3
• Track 8 : Heinz_3
• Track 9 : Reyja_4, DinoNuggs_4
• Track 10 : Xeno_3, Silvy_3, EGUnicorn_3
• Track 11 : Rubeelu_3
• Track 12 : Fulbright_3, Bosection6_3, Aggie_3, Cubone_3, Parmesanjohn_3, Charlie_3, Andies_3, Xerxes_3, Schnauzer_3, Smurph_3, Duplicity_3, Gex_3, Melville_3, Pipsqueaks_3, Chewbacca_3, Carcharodon_3, Journey_3, Philonius_3, Tapioca_3, Phloss_3, Magsby_3, Silvafighter_3, Tortoise12_3
• Track 13 : Snekmaggedon_3, PhancyPhin_3, Rebel_3, SpongeBob_3, Nenae_3, Jamie19_3, Hanako_3, Spinach_3, Phrann_3, Raymond7_3, ShrimpFriedEgg_3, BabeRuth_3, Redi_3, Shweta_3, Panchino_3
• Track 14 : Tessdabest_2, Scitech_3
• Track 15 : Kevin1_3, MichelleMyBell_3, Butters_3
• Track 16 : SkinnyPete_3, Impisi_3
• Track 17 : Purgamenstris_3
• Track 18 : Gudmit_4

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

The start number called the most often in the published annotations is 5, it was called in 41 of the 60 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aggie_3, Andies_3, BabeRuth_3, Bosection6_3, Butters_3, Carcharodon_3, Charlie_3, Chewbacca_3, Cubone_3, Duplicity_3, Fulbright_3, Gex_3, Hanako_3, Jamie19_3, Journey_3, Kevin1_3, Magsby_3, Melville_3, MichelleMyBell_3, Nenae_3, Panchino_3, Parmesanjohn_3, PhancyPhin_3, Philonius_3, Phloss_3,

Phrann_3, Pipsqueaks_3, Raymond7_3, Rebel_3, Redi_3, Schnauzer_3, ShrimpFriedEgg_3, Shweta_3, Silvafighter_3, Smurph_3, Snekmaggedon_3, Spinach_3, SpongeBob_3, Tapioca_3, Tortoise12_3, Xerxes_3,

Genes that have the "Most Annotated" start but do not call it:
• EGUnicorn_3, Impisi_3, Purgamenstris_3, Rubeelu_3, Scitech_3, Silvy_3, SkinnyPete_3, Tessdabest_2, Xeno_3,

Genes that do not have the "Most Annotated" start:
• DearBasketball_3, DinoNuggs_4, DonkeyMan_3, Faith5x5_3, Gudmit_4, Heinz_3, Hibiscus_3, Jojo24_3, Lton_3, Moosehead_3, OneDirection_3, Pepperoni_3, Reyja_4, Santhid_3, Tarzan_3,

Summary by start number:

Start 2:
• Found in 1 of 65 (1.5%) of genes in pham
• Manual Annotations of this start: 1 of 60
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gudmit_4 (singleton),

Start 3:
• Found in 9 of 65 (13.8%) of genes in pham
• Manual Annotations of this start: 7 of 60
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DearBasketball_3 (DY), DinoNuggs_4 (DY), DonkeyMan_3 (DY), Heinz_3 (DY), Hibiscus_3 (DY), Jojo24_3 (DY), Reyja_4 (DY), Santhid_3 (DY), Tarzan_3 (DY),

Start 5:
• Found in 50 of 65 (76.9%) of genes in pham
• Manual Annotations of this start: 41 of 60
• Called 82.0% of time when present
• Phage (with cluster) where this start called: Aggie_3 (N), Andies_3 (N), BabeRuth_3 (N), Bosection6_3 (N), Butters_3 (N), Carcharodon_3 (N), Charlie_3 (N), Chewbacca_3 (N), Cubone_3 (N), Duplicity_3 (N), Fulbright_3 (N), Gex_3 (N), Hanako_3 (N), Jamie19_3 (N), Journey_3 (N), Kevin1_3 (N), Magsby_3 (N), Melville_3 (N), MichelleMyBell_3 (N), Nenae_3 (N), Panchino_3 (N), Parmesanjohn_3 (N), PhancyPhin_3 (N), Philonius_3 (N), Phloss_3 (N), Phrann_3 (N), Pipsqueaks_3 (N), Raymond7_3 (N), Rebel_3 (N), Redi_3 (N), Schnauzer_3 (N), ShrimpFriedEgg_3 (N), Shweta_3 (N), Silvafighter_3 (N), Smurph_3 (N), Snekmaggedon_3 (N), Spinach_3 (N), SpongeBob_3 (N), Tapioca_3 (N), Tortoise12_3 (N), Xerxes_3 (N),

Start 6:
• Found in 5 of 65 (7.7%) of genes in pham
• Manual Annotations of this start: 5 of 60
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Faith5x5_3 (CZ6), Lton_3 (CZ), Moosehead_3 (CZ6), OneDirection_3 (CZ6), Pepperoni_3 (CZ),

Start 7:
• Found in 61 of 65 (93.8%) of genes in pham
• Manual Annotations of this start: 1 of 60

• Called 6.6% of time when present
• Phage (with cluster) where this start called: Impisi_3 (N), Scitech_3 (N), SkinnyPete_3 (N), Tessdabest_2 (N),

Start 8:
• Found in 36 of 65 (55.4%) of genes in pham
• Manual Annotations of this start: 3 of 60
• Called 8.3% of time when present
• Phage (with cluster) where this start called: EGUnicorn_3 (N), Silvy_3 (N), Xeno_3 (N),

Start 10:
• Found in 50 of 65 (76.9%) of genes in pham
• Manual Annotations of this start: 2 of 60
• Called 4.0% of time when present
• Phage (with cluster) where this start called: Purgamenstris_3 (N), Rubeelu_3 (N),

Summary by clusters:

There are 5 clusters represented in this pham: CZ, singleton, DY, CZ6, N,

Info for manual annotations of cluster CZ:
•Start number 6 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ6:
•Start number 6 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster DY:
•Start number 3 was manually annotated 7 times for cluster DY.

Info for manual annotations of cluster N:
•Start number 5 was manually annotated 41 times for cluster N.
•Start number 7 was manually annotated 1 time for cluster N.
•Start number 8 was manually annotated 3 times for cluster N.
•Start number 10 was manually annotated 2 times for cluster N.

Gene Information:

Gene: Aggie_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Aggie_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Andies_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Andies_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: BabeRuth_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for BabeRuth_3:

(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Bosection6_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Bosection6_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Butters_3 Start: 2023, Stop: 2235, Start Num: 5
Candidate Starts for Butters_3:
(Start: 5 @2023 has 41 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (14, 2104), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Carcharodon_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Carcharodon_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Charlie_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Charlie_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Chewbacca_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Chewbacca_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Cubone_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Cubone_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: DearBasketball_3 Start: 2115, Stop: 2354, Start Num: 3
Candidate Starts for DearBasketball_3:
(Start: 3 @2115 has 7 MA's), (Start: 7 @2148 has 1 MA's), (14, 2202), (16, 2232), (22, 2292), (23, 2295), (26, 2325),

Gene: DinoNuggs_4 Start: 2231, Stop: 2467, Start Num: 3
Candidate Starts for DinoNuggs_4:
(Start: 3 @2231 has 7 MA's), (Start: 7 @2264 has 1 MA's), (Start: 8 @2276 has 3 MA's), (14, 2318), (16, 2348), (23, 2411), (25, 2435), (27, 2462),

Gene: DonkeyMan_3 Start: 2115, Stop: 2354, Start Num: 3
Candidate Starts for DonkeyMan_3:
(Start: 3 @2115 has 7 MA's), (Start: 7 @2148 has 1 MA's), (14, 2202), (16, 2232), (21, 2289), (22, 2292), (23, 2295), (26, 2325),

Gene: Duplicity_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Duplicity_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: EGUnicorn_3 Start: 2062, Stop: 2235, Start Num: 8
Candidate Starts for EGUnicorn_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Faith5x5_3 Start: 1948, Stop: 2166, Start Num: 6
Candidate Starts for Faith5x5_3:
(Start: 6 @1948 has 5 MA's), (Start: 7 @1969 has 1 MA's), (Start: 8 @1981 has 3 MA's), (9, 1984), (11, 2011), (13, 2020), (14, 2023), (15, 2050), (18, 2071), (19, 2077), (20, 2095),

Gene: Fulbright_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Fulbright_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Gex_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Gex_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Gudmit_4 Start: 2701, Stop: 2934, Start Num: 2
Candidate Starts for Gudmit_4:
(1, 2524), (Start: 2 @2701 has 1 MA's), (4, 2716), (Start: 7 @2740 has 1 MA's), (Start: 8 @2752 has 3 MA's), (13, 2791), (14, 2794), (16, 2824), (20, 2863), (21, 2881),

Gene: Hanako_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Hanako_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Heinz_3 Start: 2117, Stop: 2356, Start Num: 3
Candidate Starts for Heinz_3:
(Start: 3 @2117 has 7 MA's), (Start: 7 @2150 has 1 MA's), (14, 2204), (16, 2234), (20, 2273), (21, 2291), (22, 2294), (23, 2297), (26, 2327),

Gene: Hibiscus_3 Start: 2117, Stop: 2356, Start Num: 3
Candidate Starts for Hibiscus_3:
(Start: 3 @2117 has 7 MA's), (Start: 7 @2150 has 1 MA's), (14, 2204), (16, 2234), (21, 2291), (22, 2294), (23, 2297), (26, 2327),

Gene: Impisi_3 Start: 2061, Stop: 2246, Start Num: 7
Candidate Starts for Impisi_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Jamie19_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Jamie19_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Jojo24_3 Start: 2112, Stop: 2351, Start Num: 3
Candidate Starts for Jojo24_3:

(Start: 3 @2112 has 7 MA's), (Start: 7 @2145 has 1 MA's), (14, 2199), (16, 2229), (21, 2286), (22, 2289), (23, 2292), (26, 2322),

Gene: Journey_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Journey_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Kevin1_3 Start: 2023, Stop: 2235, Start Num: 5
Candidate Starts for Kevin1_3:
(Start: 5 @2023 has 41 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (14, 2104), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Lton_3 Start: 1952, Stop: 2170, Start Num: 6
Candidate Starts for Lton_3:
(Start: 6 @1952 has 5 MA's), (Start: 7 @1973 has 1 MA's), (Start: 8 @1985 has 3 MA's), (9, 1988), (11, 2015), (13, 2024), (14, 2027), (15, 2054), (17, 2072),

Gene: Magsby_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Magsby_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Melville_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Melville_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: MichelleMyBell_3 Start: 2037, Stop: 2249, Start Num: 5
Candidate Starts for MichelleMyBell_3:
(Start: 5 @2037 has 41 MA's), (Start: 10 @2082 has 2 MA's), (13, 2115), (14, 2118), (16, 2148), (22, 2208), (24, 2226), (25, 2235),

Gene: Moosehead_3 Start: 1948, Stop: 2163, Start Num: 6
Candidate Starts for Moosehead_3:
(Start: 6 @1948 has 5 MA's), (Start: 7 @1969 has 1 MA's), (Start: 8 @1981 has 3 MA's), (9, 1984), (11, 2011), (12, 2014), (13, 2020), (14, 2023), (21, 2110),

Gene: Nenae_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Nenae_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: OneDirection_3 Start: 1949, Stop: 2164, Start Num: 6
Candidate Starts for OneDirection_3:
(Start: 6 @1949 has 5 MA's), (Start: 7 @1970 has 1 MA's), (Start: 8 @1982 has 3 MA's), (9, 1985), (11, 2012), (12, 2015), (13, 2021), (14, 2024), (18, 2072), (21, 2111),

Gene: Panchino_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Panchino_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Parmesanjohn_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Parmesanjohn_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Pepperoni_3 Start: 2246, Stop: 2464, Start Num: 6
Candidate Starts for Pepperoni_3:
(Start: 6 @2246 has 5 MA's), (Start: 7 @2267 has 1 MA's), (Start: 8 @2279 has 3 MA's), (9, 2282), (11, 2309), (14, 2321), (15, 2348), (17, 2366), (18, 2369),

Gene: PhancyPhin_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for PhancyPhin_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Philonius_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Philonius_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Phloss_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Phloss_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Phrann_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Phrann_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Pipsqueaks_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Pipsqueaks_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Purgamenstris_3 Start: 2079, Stop: 2246, Start Num: 10
Candidate Starts for Purgamenstris_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Raymond7_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Raymond7_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Rebel_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Rebel_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Redi_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Redi_3:

(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Reyja_4 Start: 2231, Stop: 2467, Start Num: 3
Candidate Starts for Reyja_4:
(Start: 3 @2231 has 7 MA's), (Start: 7 @2264 has 1 MA's), (Start: 8 @2276 has 3 MA's), (14, 2318), (16, 2348), (23, 2411), (25, 2435), (27, 2462),

Gene: Rubeelu_3 Start: 2068, Stop: 2235, Start Num: 10
Candidate Starts for Rubeelu_3:
(Start: 5 @2023 has 41 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (14, 2104), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Santhid_3 Start: 2114, Stop: 2353, Start Num: 3
Candidate Starts for Santhid_3:
(Start: 3 @2114 has 7 MA's), (Start: 7 @2147 has 1 MA's), (14, 2201), (16, 2231), (22, 2291), (23, 2294), (26, 2324),

Gene: Schnauzer_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Schnauzer_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Scitech_3 Start: 2050, Stop: 2235, Start Num: 7
Candidate Starts for Scitech_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: ShrimpFriedEgg_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for ShrimpFriedEgg_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Shweta_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Shweta_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Silvafighter_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Silvafighter_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Silvy_3 Start: 2062, Stop: 2235, Start Num: 8
Candidate Starts for Silvy_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: SkinnyPete_3 Start: 2061, Stop: 2246, Start Num: 7
Candidate Starts for SkinnyPete_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Smurph_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Smurph_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Snekmaggedon_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Snekmaggedon_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Spinach_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for Spinach_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: SpongeBob_3 Start: 2037, Stop: 2246, Start Num: 5
Candidate Starts for SpongeBob_3:
(Start: 5 @2037 has 41 MA's), (Start: 7 @2061 has 1 MA's), (Start: 10 @2079 has 2 MA's), (16, 2145), (22, 2205), (24, 2223), (25, 2232),

Gene: Tapioca_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Tapioca_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Tarzan_3 Start: 2114, Stop: 2353, Start Num: 3
Candidate Starts for Tarzan_3:
(Start: 3 @2114 has 7 MA's), (Start: 7 @2147 has 1 MA's), (14, 2201), (16, 2231), (21, 2288), (22, 2291), (23, 2294), (26, 2324),

Gene: Tessdabest_2 Start: 2050, Stop: 2235, Start Num: 7
Candidate Starts for Tessdabest_2:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Tortoise12_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Tortoise12_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Xeno_3 Start: 2062, Stop: 2235, Start Num: 8
Candidate Starts for Xeno_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),

Gene: Xerxes_3 Start: 2029, Stop: 2235, Start Num: 5
Candidate Starts for Xerxes_3:
(Start: 5 @2029 has 41 MA's), (Start: 7 @2050 has 1 MA's), (Start: 8 @2062 has 3 MA's), (Start: 10 @2068 has 2 MA's), (13, 2101), (16, 2134), (22, 2194), (24, 2212), (25, 2221),