

Pham 289325



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 289325 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289325 has 82 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Samisti12_111, BlueOtter_110, Watermoore_109, Cursive_108, HangryHippo_110, Coogler_110, PacManQ_109, Leo04_111, Scheme_111, Cross_110, Peebs_109, Larnav_110, Lululemon_109, Teutsch_110, EGole_113
- Track 2 : Eliot67_110, Davielle_110, Navo_109, Braelyn_113, Liandry_111, Persimmon_111, WhereRU_109, Paradiddles_107, NootNoot_108, Bartholomune_111, Squillium_112, FreddyDRoo_110, PinkiePie_110
- Track 3 : LilMartin_110, Angela_110, MulchMansion_110
- Track 4 : Anedea_110, Bmoc_111
- Track 5 : Cadmus_109
- Track 6 : Sushi23_110, Pepperwood_110, Tribute_109
- Track 7 : LilSaint_109, Riptide_107
- Track 8 : Targaryen_111, Evy_110, Jay2Jay_115, Warpy_114
- Track 9 : Mildred21_112
- Track 10 : Shuckle_109
- Track 11 : Marsus_111
- Track 12 : BoomerJR_117, Genie2_117, AngryGiraffe_116, Yaboi_117, Stanimal_116, Sollertia_116
- Track 13 : Elmer_116
- Track 14 : IchabodCrane_114
- Track 15 : AcciDwight_121, Birchlyn_114, Wipeout_114, SaltySpittoon_116, KentuckyRacer_118, Jollison_116, CeilingFan_116, MindFlayer_114, TomSawyer_117, Bordeaux_115, Starbow_115, Gibbi_122, Amabiko_117, Rikishi_116, Quaran19_116, Battuta_115, JimJam_118, PumpkinSpice_117, Spelly_117
- Track 16 : Brizzy_116, Spilled_118, Karimac_116
- Track 17 : Mugiwara_116
- Track 18 : Enygma_115
- Track 19 : Tomas_119
- Track 20 : Wofford_112
- Track 21 : StarPlatinum_117
- Track 22 : LukeCage_115

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

The start number called the most often in the published annotations is 12, it was called in 42 of the 78 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight_121, Amabiko_117, Anedea_110, Angela_110, AngryGiraffe_116, Battuta_115, Birchlyn_114, Bmoc_111, BoomerJR_117, Bordeaux_115, Brizzy_116, Cadmus_109, CeilingFan_116, Elmer_116, Enygma_115, Genie2_117, Gibbi_122, JimJam_118, Jollison_116, Karimac_116, KentuckyRacer_118, LilMartin_110, LilSaint_109, LukeCage_115, Marsus_111, Mildred21_112, MindFlayer_114, Mugiwara_116, MulchMansion_110, PumpkinSpice_117, Quaran19_116, Rikishi_116, Riptide_107, SaltySpitooon_116, Sollertia_116, Spelly_117, Spilled_118, Stanimal_116, StarPlatinum_117, Starbow_115, TomSawyer_117, Tomas_119, Wipeout_114, Yaboi_117,

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

- IchabodCrane_114, Wofford_112,

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

- Bartholomune_111, BlueOtter_110, Braelyn_113, Coogler_110, Cross_110, Cursive_108, Davielle_110, EGole_113, Eliot67_110, Evy_110, FreddyDRoo_110, HangryHippo_110, Jay2Jay_115, Larnav_110, Leo04_111, Liandry_111, Lululemon_109, Navo_109, NootNoot_108, PacManQ_109, Paradiddles_107, Peebs_109, Pepperwood_110, Persimmon_111, PinkiePie_110, Samisti12_111, Scheme_111, Shuckle_109, Squillium_112, Sushi23_110, Targaryen_111, Teutsch_110, Tribute_109, Warpy_114, Watermoore_109, WhereRU_109,

Summary by start number:

Start 11:

- Found in 27 of 82 (32.9%) of genes in pham
- Manual Annotations of this start: 2 of 78
- Called 7.4% of time when present
- Phage (with cluster) where this start called: IchabodCrane_114 (BE2), Wofford_112 (BE2),

Start 12:

- Found in 46 of 82 (56.1%) of genes in pham
- Manual Annotations of this start: 42 of 78
- Called 95.7% of time when present
- Phage (with cluster) where this start called: AcciDwight_121 (BE2), Amabiko_117 (BE2), Anedea_110 (BE1), Angela_110 (BE1), AngryGiraffe_116 (BE2), Battuta_115 (BE2), Birchlyn_114 (BE2), Bmoc_111 (BE1), BoomerJR_117 (BE2), Bordeaux_115 (BE2), Brizzy_116 (BE2), Cadmus_109 (BE1), CeilingFan_116 (BE2), Elmer_116 (BE2), Enygma_115 (BE2), Genie2_117 (BE2), Gibbi_122 (BE2), JimJam_118 (BE2), Jollison_116 (BE2), Karimac_116 (BE2), KentuckyRacer_118 (BE2), LilMartin_110 (BE1), LilSaint_109 (BE1), LukeCage_115 (BE2), Marsus_111 (BE1), Mildred21_112 (BE1), MindFlayer_114 (BE2), Mugiwara_116 (BE2), MulchMansion_110 (BE1), PumpkinSpice_117 (BE2), Quaran19_116 (BE2), Rikishi_116 (BE2), Riptide_107 (BE1), SaltySpitooon_116 (BE2), Sollertia_116 (BE2), Spelly_117 (BE2), Spilled_118 (BE2), Stanimal_116 (BE2), StarPlatinum_117 (BE2), Starbow_115 (BE2), TomSawyer_117 (BE2), Tomas_119 (BE2), Wipeout_114 (BE2), Yaboi_117 (BE2),

Start 13:

- Found in 36 of 82 (43.9%) of genes in pham
- Manual Annotations of this start: 34 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bartholomune_111 (BE1), BlueOtter_110 (BE1), Braelyn_113 (BE1), Coogler_110 (BE1), Cross_110 (BE1), Cursive_108 (BE1), Davielle_110 (BE1), EGole_113 (BE1), Eliot67_110 (BE1), Evy_110 (BE1), FreddyDRoo_110 (BE1), HangryHippo_110 (BE1), Jay2Jay_115 (BE1), Larnav_110 (BE1), Leo04_111 (BE1), Liandry_111 (BE1), Lululemon_109 (BE1), Navo_109 (BE1), NootNoot_108 (BE1), PacManQ_109 (BE1), Paradiddles_107 (BE1), Peebs_109 (BE1), Pepperwood_110 (BE1), Persimmon_111 (BE1), PinkiePie_110 (BE1), Samisti12_111 (BE1), Scheme_111 (BE1), Shuckle_109 (BE1), Squillum_112 (BE1), Sushi23_110 (BE1), Targaryen_111 (BE1), Teutsch_110 (BE1), Tribute_109 (BE1), Warpy_114 (BE1), Watermoore_109 (BE1), WhereRU_109 (BE1),

Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:

- Start number 12 was manually annotated 10 times for cluster BE1.
- Start number 13 was manually annotated 34 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 11 was manually annotated 2 times for cluster BE2.
- Start number 12 was manually annotated 32 times for cluster BE2.

Gene Information:

Gene: AcciDwight_121 Start: 77220, Stop: 77399, Start Num: 12

Candidate Starts for AcciDwight_121:

(2, 77142), (Start: 11 @77217 has 2 MA's), (Start: 12 @77220 has 42 MA's), (20, 77331), (24, 77361),

Gene: Amabiko_117 Start: 77265, Stop: 77444, Start Num: 12

Candidate Starts for Amabiko_117:

(2, 77187), (Start: 11 @77262 has 2 MA's), (Start: 12 @77265 has 42 MA's), (20, 77376), (24, 77406),

Gene: Anedea_110 Start: 75835, Stop: 76008, Start Num: 12

Candidate Starts for Anedea_110:

(10, 75817), (Start: 12 @75835 has 42 MA's), (17, 75928), (18, 75937), (19, 75940), (20, 75943),

Gene: Angela_110 Start: 76178, Stop: 76351, Start Num: 12

Candidate Starts for Angela_110:

(Start: 12 @76178 has 42 MA's), (17, 76271), (18, 76280), (19, 76283), (20, 76286), (25, 76337),

Gene: AngryGiraffe_116 Start: 77416, Stop: 77595, Start Num: 12

Candidate Starts for AngryGiraffe_116:

(Start: 12 @77416 has 42 MA's), (20, 77527), (24, 77557),

Gene: Bartholomune_111 Start: 76652, Stop: 76810, Start Num: 13

Candidate Starts for Bartholomune_111:

(Start: 13 @76652 has 34 MA's), (17, 76730), (22, 76766), (23, 76769),

Gene: Battuta_115 Start: 77239, Stop: 77418, Start Num: 12

Candidate Starts for Battuta_115:

(2, 77161), (Start: 11 @77236 has 2 MA's), (Start: 12 @77239 has 42 MA's), (20, 77350), (24, 77380),

Gene: Birchlyn_114 Start: 75125, Stop: 75304, Start Num: 12

Candidate Starts for Birchlyn_114:

(2, 75047), (Start: 11 @75122 has 2 MA's), (Start: 12 @75125 has 42 MA's), (20, 75236), (24, 75266),

Gene: BlueOtter_110 Start: 77063, Stop: 77221, Start Num: 13

Candidate Starts for BlueOtter_110:

(Start: 13 @77063 has 34 MA's), (17, 77141), (23, 77180),

Gene: Bmoc_111 Start: 76263, Stop: 76436, Start Num: 12

Candidate Starts for Bmoc_111:

(10, 76245), (Start: 12 @76263 has 42 MA's), (17, 76356), (18, 76365), (19, 76368), (20, 76371),

Gene: BoomerJR_117 Start: 77305, Stop: 77484, Start Num: 12

Candidate Starts for BoomerJR_117:

(Start: 12 @77305 has 42 MA's), (20, 77416), (24, 77446),

Gene: Bordeaux_115 Start: 77394, Stop: 77573, Start Num: 12

Candidate Starts for Bordeaux_115:

(2, 77316), (Start: 11 @77391 has 2 MA's), (Start: 12 @77394 has 42 MA's), (20, 77505), (24, 77535),

Gene: Braelyn_113 Start: 77537, Stop: 77695, Start Num: 13

Candidate Starts for Braelyn_113:

(Start: 13 @77537 has 34 MA's), (17, 77615), (22, 77651), (23, 77654),

Gene: Brizzy_116 Start: 77045, Stop: 77224, Start Num: 12

Candidate Starts for Brizzy_116:

(2, 76967), (Start: 11 @77042 has 2 MA's), (Start: 12 @77045 has 42 MA's), (20, 77156), (24, 77186),

Gene: Cadmus_109 Start: 75792, Stop: 75965, Start Num: 12

Candidate Starts for Cadmus_109:

(3, 75726), (4, 75732), (5, 75738), (9, 75765), (Start: 12 @75792 has 42 MA's),

Gene: CeilingFan_116 Start: 77157, Stop: 77336, Start Num: 12

Candidate Starts for CeilingFan_116:

(2, 77079), (Start: 11 @77154 has 2 MA's), (Start: 12 @77157 has 42 MA's), (20, 77268), (24, 77298),

Gene: Coogler_110 Start: 77089, Stop: 77247, Start Num: 13

Candidate Starts for Coogler_110:

(Start: 13 @77089 has 34 MA's), (17, 77167), (23, 77206),

Gene: Cross_110 Start: 77064, Stop: 77222, Start Num: 13

Candidate Starts for Cross_110:

(Start: 13 @77064 has 34 MA's), (17, 77142), (23, 77181),

Gene: Cursive_108 Start: 76589, Stop: 76747, Start Num: 13

Candidate Starts for Cursive_108:

(Start: 13 @76589 has 34 MA's), (17, 76667), (23, 76706),

Gene: Davielle_110 Start: 76994, Stop: 77152, Start Num: 13
Candidate Starts for Davielle_110:
(Start: 13 @76994 has 34 MA's), (17, 77072), (22, 77108), (23, 77111),

Gene: EGole_113 Start: 77908, Stop: 78066, Start Num: 13
Candidate Starts for EGole_113:
(Start: 13 @77908 has 34 MA's), (17, 77986), (23, 78025),

Gene: Eliot67_110 Start: 76694, Stop: 76852, Start Num: 13
Candidate Starts for Eliot67_110:
(Start: 13 @76694 has 34 MA's), (17, 76772), (22, 76808), (23, 76811),

Gene: Elmer_116 Start: 78466, Stop: 78645, Start Num: 12
Candidate Starts for Elmer_116:
(Start: 11 @78463 has 2 MA's), (Start: 12 @78466 has 42 MA's), (20, 78577), (24, 78607),

Gene: Enygma_115 Start: 78780, Stop: 78959, Start Num: 12
Candidate Starts for Enygma_115:
(1, 78699), (6, 78729), (7, 78735), (8, 78747), (Start: 11 @78777 has 2 MA's), (Start: 12 @78780 has 42 MA's), (24, 78921),

Gene: Evy_110 Start: 76919, Stop: 77077, Start Num: 13
Candidate Starts for Evy_110:
(Start: 13 @76919 has 34 MA's), (17, 76997), (23, 77036),

Gene: FreddyDRoo_110 Start: 76694, Stop: 76852, Start Num: 13
Candidate Starts for FreddyDRoo_110:
(Start: 13 @76694 has 34 MA's), (17, 76772), (22, 76808), (23, 76811),

Gene: Genie2_117 Start: 77419, Stop: 77598, Start Num: 12
Candidate Starts for Genie2_117:
(Start: 12 @77419 has 42 MA's), (20, 77530), (24, 77560),

Gene: Gibbi_122 Start: 77377, Stop: 77556, Start Num: 12
Candidate Starts for Gibbi_122:
(2, 77299), (Start: 11 @77374 has 2 MA's), (Start: 12 @77377 has 42 MA's), (20, 77488), (24, 77518),

Gene: HangryHippo_110 Start: 77063, Stop: 77221, Start Num: 13
Candidate Starts for HangryHippo_110:
(Start: 13 @77063 has 34 MA's), (17, 77141), (23, 77180),

Gene: IchabodCrane_114 Start: 76963, Stop: 77145, Start Num: 11
Candidate Starts for IchabodCrane_114:
(2, 76888), (Start: 11 @76963 has 2 MA's), (Start: 12 @76966 has 42 MA's), (20, 77077), (24, 77107),

Gene: Jay2Jay_115 Start: 77860, Stop: 78018, Start Num: 13
Candidate Starts for Jay2Jay_115:
(Start: 13 @77860 has 34 MA's), (17, 77938), (23, 77977),

Gene: JimJam_118 Start: 77788, Stop: 77967, Start Num: 12
Candidate Starts for JimJam_118:
(2, 77710), (Start: 11 @77785 has 2 MA's), (Start: 12 @77788 has 42 MA's), (20, 77899), (24, 77929),

Gene: Jollison_116 Start: 77222, Stop: 77401, Start Num: 12
Candidate Starts for Jollison_116:
(2, 77144), (Start: 11 @77219 has 2 MA's), (Start: 12 @77222 has 42 MA's), (20, 77333), (24, 77363),

Gene: Karimac_116 Start: 77503, Stop: 77682, Start Num: 12
Candidate Starts for Karimac_116:
(2, 77425), (Start: 11 @77500 has 2 MA's), (Start: 12 @77503 has 42 MA's), (20, 77614), (24, 77644),

Gene: KentuckyRacer_118 Start: 77652, Stop: 77831, Start Num: 12
Candidate Starts for KentuckyRacer_118:
(2, 77574), (Start: 11 @77649 has 2 MA's), (Start: 12 @77652 has 42 MA's), (20, 77763), (24, 77793),

Gene: Larnav_110 Start: 77048, Stop: 77206, Start Num: 13
Candidate Starts for Larnav_110:
(Start: 13 @77048 has 34 MA's), (17, 77126), (23, 77165),

Gene: Leo04_111 Start: 77563, Stop: 77721, Start Num: 13
Candidate Starts for Leo04_111:
(Start: 13 @77563 has 34 MA's), (17, 77641), (23, 77680),

Gene: Liandry_111 Start: 77401, Stop: 77559, Start Num: 13
Candidate Starts for Liandry_111:
(Start: 13 @77401 has 34 MA's), (17, 77479), (22, 77515), (23, 77518),

Gene: LilMartin_110 Start: 76126, Stop: 76299, Start Num: 12
Candidate Starts for LilMartin_110:
(Start: 12 @76126 has 42 MA's), (17, 76219), (18, 76228), (19, 76231), (20, 76234), (25, 76285),

Gene: LilSaint_109 Start: 75566, Stop: 75745, Start Num: 12
Candidate Starts for LilSaint_109:
(10, 75548), (Start: 12 @75566 has 42 MA's), (15, 75602), (16, 75629), (20, 75674), (24, 75704),

Gene: LukeCage_115 Start: 77173, Stop: 77352, Start Num: 12
Candidate Starts for LukeCage_115:
(Start: 12 @77173 has 42 MA's), (20, 77284), (24, 77314),

Gene: Lululemon_109 Start: 76444, Stop: 76602, Start Num: 13
Candidate Starts for Lululemon_109:
(Start: 13 @76444 has 34 MA's), (17, 76522), (23, 76561),

Gene: Marsus_111 Start: 76597, Stop: 76770, Start Num: 12
Candidate Starts for Marsus_111:
(Start: 12 @76597 has 42 MA's), (17, 76690), (18, 76699), (19, 76702), (20, 76705), (21, 76723), (25, 76756),

Gene: Mildred21_112 Start: 76359, Stop: 76538, Start Num: 12
Candidate Starts for Mildred21_112:
(Start: 12 @76359 has 42 MA's), (20, 76467),

Gene: MindFlayer_114 Start: 76873, Stop: 77052, Start Num: 12
Candidate Starts for MindFlayer_114:
(2, 76795), (Start: 11 @76870 has 2 MA's), (Start: 12 @76873 has 42 MA's), (20, 76984), (24, 77014),

Gene: Mugiwara_116 Start: 77757, Stop: 77936, Start Num: 12

Candidate Starts for Mugiwara_116:

(Start: 11 @77754 has 2 MA's), (Start: 12 @77757 has 42 MA's), (20, 77868), (24, 77898),

Gene: MulchMansion_110 Start: 76126, Stop: 76299, Start Num: 12

Candidate Starts for MulchMansion_110:

(Start: 12 @76126 has 42 MA's), (17, 76219), (18, 76228), (19, 76231), (20, 76234), (25, 76285),

Gene: Navo_109 Start: 77199, Stop: 77357, Start Num: 13

Candidate Starts for Navo_109:

(Start: 13 @77199 has 34 MA's), (17, 77277), (22, 77313), (23, 77316),

Gene: NootNoot_108 Start: 76315, Stop: 76473, Start Num: 13

Candidate Starts for NootNoot_108:

(Start: 13 @76315 has 34 MA's), (17, 76393), (22, 76429), (23, 76432),

Gene: PacManQ_109 Start: 76444, Stop: 76602, Start Num: 13

Candidate Starts for PacManQ_109:

(Start: 13 @76444 has 34 MA's), (17, 76522), (23, 76561),

Gene: Paradiddles_107 Start: 76464, Stop: 76622, Start Num: 13

Candidate Starts for Paradiddles_107:

(Start: 13 @76464 has 34 MA's), (17, 76542), (22, 76578), (23, 76581),

Gene: Peebs_109 Start: 76861, Stop: 77019, Start Num: 13

Candidate Starts for Peebs_109:

(Start: 13 @76861 has 34 MA's), (17, 76939), (23, 76978),

Gene: Pepperwood_110 Start: 76992, Stop: 77150, Start Num: 13

Candidate Starts for Pepperwood_110:

(Start: 13 @76992 has 34 MA's), (17, 77070),

Gene: Persimmon_111 Start: 76249, Stop: 76407, Start Num: 13

Candidate Starts for Persimmon_111:

(Start: 13 @76249 has 34 MA's), (17, 76327), (22, 76363), (23, 76366),

Gene: PinkiePie_110 Start: 77401, Stop: 77559, Start Num: 13

Candidate Starts for PinkiePie_110:

(Start: 13 @77401 has 34 MA's), (17, 77479), (22, 77515), (23, 77518),

Gene: PumpkinSpice_117 Start: 77831, Stop: 78010, Start Num: 12

Candidate Starts for PumpkinSpice_117:

(2, 77753), (Start: 11 @77828 has 2 MA's), (Start: 12 @77831 has 42 MA's), (20, 77942), (24, 77972),

Gene: Quaran19_116 Start: 77256, Stop: 77435, Start Num: 12

Candidate Starts for Quaran19_116:

(2, 77178), (Start: 11 @77253 has 2 MA's), (Start: 12 @77256 has 42 MA's), (20, 77367), (24, 77397),

Gene: Rikishi_116 Start: 77171, Stop: 77350, Start Num: 12

Candidate Starts for Rikishi_116:

(2, 77093), (Start: 11 @77168 has 2 MA's), (Start: 12 @77171 has 42 MA's), (20, 77282), (24, 77312),

Gene: Riptide_107 Start: 75108, Stop: 75287, Start Num: 12
Candidate Starts for Riptide_107:
(10, 75090), (Start: 12 @75108 has 42 MA's), (15, 75144), (16, 75171), (20, 75216), (24, 75246),

Gene: SaltySpittoon_116 Start: 77268, Stop: 77447, Start Num: 12
Candidate Starts for SaltySpittoon_116:
(2, 77190), (Start: 11 @77265 has 2 MA's), (Start: 12 @77268 has 42 MA's), (20, 77379), (24, 77409),

Gene: Samisti12_111 Start: 78240, Stop: 78398, Start Num: 13
Candidate Starts for Samisti12_111:
(Start: 13 @78240 has 34 MA's), (17, 78318), (23, 78357),

Gene: Scheme_111 Start: 77645, Stop: 77803, Start Num: 13
Candidate Starts for Scheme_111:
(Start: 13 @77645 has 34 MA's), (17, 77723), (23, 77762),

Gene: Shuckle_109 Start: 77370, Stop: 77528, Start Num: 13
Candidate Starts for Shuckle_109:
(Start: 13 @77370 has 34 MA's),

Gene: Sollertia_116 Start: 77419, Stop: 77598, Start Num: 12
Candidate Starts for Sollertia_116:
(Start: 12 @77419 has 42 MA's), (20, 77530), (24, 77560),

Gene: Spelly_117 Start: 77220, Stop: 77399, Start Num: 12
Candidate Starts for Spelly_117:
(2, 77142), (Start: 11 @77217 has 2 MA's), (Start: 12 @77220 has 42 MA's), (20, 77331), (24, 77361),

Gene: Spilled_118 Start: 77337, Stop: 77516, Start Num: 12
Candidate Starts for Spilled_118:
(2, 77259), (Start: 11 @77334 has 2 MA's), (Start: 12 @77337 has 42 MA's), (20, 77448), (24, 77478),

Gene: Squillium_112 Start: 77402, Stop: 77560, Start Num: 13
Candidate Starts for Squillium_112:
(Start: 13 @77402 has 34 MA's), (17, 77480), (22, 77516), (23, 77519),

Gene: Stanimal_116 Start: 77308, Stop: 77487, Start Num: 12
Candidate Starts for Stanimal_116:
(Start: 12 @77308 has 42 MA's), (20, 77419), (24, 77449),

Gene: StarPlatinum_117 Start: 78051, Stop: 78227, Start Num: 12
Candidate Starts for StarPlatinum_117:
(2, 77973), (Start: 12 @78051 has 42 MA's), (20, 78162), (24, 78192), (25, 78213),

Gene: Starbow_115 Start: 77241, Stop: 77420, Start Num: 12
Candidate Starts for Starbow_115:
(2, 77163), (Start: 11 @77238 has 2 MA's), (Start: 12 @77241 has 42 MA's), (20, 77352), (24, 77382),

Gene: Sushi23_110 Start: 77217, Stop: 77375, Start Num: 13
Candidate Starts for Sushi23_110:
(Start: 13 @77217 has 34 MA's), (17, 77295),

Gene: Targaryen_111 Start: 77906, Stop: 78064, Start Num: 13

Candidate Starts for Targaryen_111:
(Start: 13 @77906 has 34 MA's), (17, 77984), (23, 78023),

Gene: Teutsch_110 Start: 77419, Stop: 77577, Start Num: 13
Candidate Starts for Teutsch_110:
(Start: 13 @77419 has 34 MA's), (17, 77497), (23, 77536),

Gene: TomSawyer_117 Start: 77286, Stop: 77465, Start Num: 12
Candidate Starts for TomSawyer_117:
(2, 77208), (Start: 11 @77283 has 2 MA's), (Start: 12 @77286 has 42 MA's), (20, 77397), (24, 77427),

Gene: Tomas_119 Start: 79170, Stop: 79349, Start Num: 12
Candidate Starts for Tomas_119:
(Start: 12 @79170 has 42 MA's), (14, 79203), (20, 79284), (24, 79314), (25, 79335),

Gene: Tribute_109 Start: 77104, Stop: 77262, Start Num: 13
Candidate Starts for Tribute_109:
(Start: 13 @77104 has 34 MA's), (17, 77182),

Gene: Warpy_114 Start: 77369, Stop: 77527, Start Num: 13
Candidate Starts for Warpy_114:
(Start: 13 @77369 has 34 MA's), (17, 77447), (23, 77486),

Gene: Watermoore_109 Start: 77635, Stop: 77793, Start Num: 13
Candidate Starts for Watermoore_109:
(Start: 13 @77635 has 34 MA's), (17, 77713), (23, 77752),

Gene: WhereRU_109 Start: 76994, Stop: 77152, Start Num: 13
Candidate Starts for WhereRU_109:
(Start: 13 @76994 has 34 MA's), (17, 77072), (22, 77108), (23, 77111),

Gene: Wipeout_114 Start: 77610, Stop: 77789, Start Num: 12
Candidate Starts for Wipeout_114:
(2, 77532), (Start: 11 @77607 has 2 MA's), (Start: 12 @77610 has 42 MA's), (20, 77721), (24, 77751),

Gene: Wofford_112 Start: 78427, Stop: 78609, Start Num: 11
Candidate Starts for Wofford_112:
(Start: 11 @78427 has 2 MA's), (Start: 12 @78430 has 42 MA's), (20, 78541), (24, 78571),

Gene: Yaboi_117 Start: 77396, Stop: 77575, Start Num: 12
Candidate Starts for Yaboi_117:
(Start: 12 @77396 has 42 MA's), (20, 77507), (24, 77537),