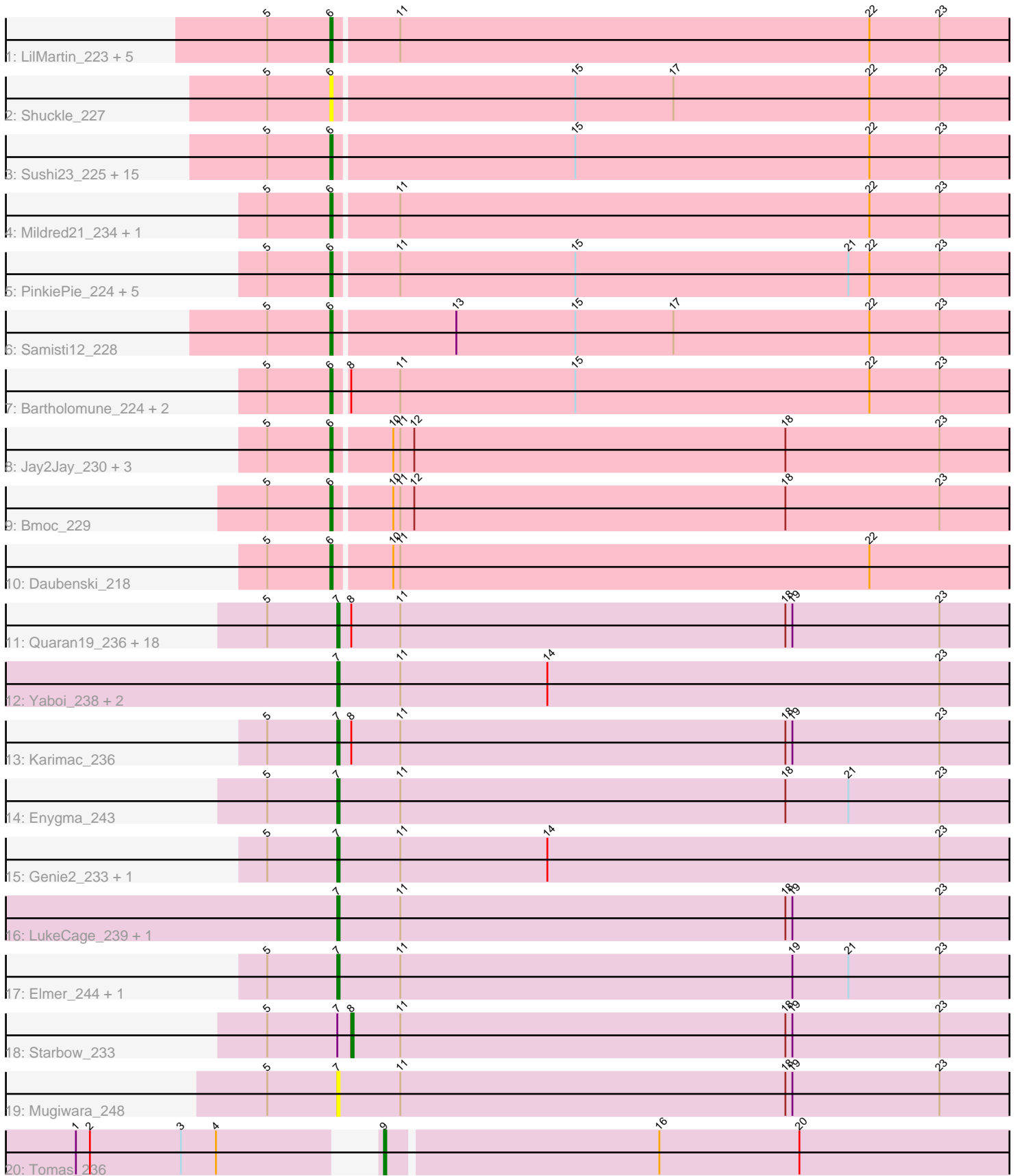


Pham 206726



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 206726 Report

This analysis was run 02/22/25 on database version 588.

Pham number 206726 has 74 members, 7 are drafts.

Phages represented in each track:

- Track 1 : LilMartin_223, MulchMansion_227, Marsus_236, Anedeia_237, Riptide_230, Angela_227
- Track 2 : Shuckle_227
- Track 3 : Sushi23_225, PacManQ_221, BlueOtter_222, HangryHippo_222, Watermoore_223, Scheme_227, Tribute_220, Larnav_224, Teutsch_223, Cross_223, Pepperwood_224, Leo04_224, Peebs_221, EGole_228, Lululemon_221, Cursive_227
- Track 4 : Mildred21_234, Paradiddles_216
- Track 5 : PinkiePie_224, Squillium_227, Braelyn_220, NootNoot_221, Liandry_224, WhereRU_223
- Track 6 : Samisti12_228
- Track 7 : Bartholomune_224, Persimmon_227, Navo_218
- Track 8 : Jay2Jay_230, Targaryen_224, Evy_214, Warpy_227
- Track 9 : Bmoc_229
- Track 10 : Daubenski_218
- Track 11 : Quarant19_236, Battuta_234, Birchlyn_235, PumpkinSpice_239, Rikishi_244, Jollison_233, Bordeaux_234, Spilled_243, CeilingFan_240, Gibbi_244, MindFlayer_229, SaltySpittoon_236, TomSawyer_240, JimJam_243, Wipeout_226, KentuckyRacer_242, Amabiko_240, IchabodCrane_230, Spelly_241
- Track 12 : Yaboi_238, Stanimal_233, BoomerJR_233
- Track 13 : Karimac_236
- Track 14 : Enygma_243
- Track 15 : Genie2_233, Sollertia_234
- Track 16 : LukeCage_239, StarPlatinum_243
- Track 17 : Elmer_244, Wofford_236
- Track 18 : Starbow_233
- Track 19 : Mugiwara_248
- Track 20 : Tomas_236

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

The start number called the most often in the published annotations is 6, it was called in 37 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anedea_237, Angela_227, Bartholomune_224, BlueOtter_222, Bmoc_229, Braelyn_220, Cross_223, Cursive_227, Daubenski_218, EGole_228, Evy_214, HangryHippo_222, Jay2Jay_230, Larnav_224, Leo04_224, Liandry_224, LilMartin_223, Lululemon_221, Marsus_236, Mildred21_234, MulchMansion_227, Navo_218, NootNoot_221, PacManQ_221, Paradiddles_216, Peebs_221, Pepperwood_224, Persimmon_227, PinkiePie_224, Riptide_230, Samisti12_228, Scheme_227, Shuckle_227, Squillium_227, Sushi23_225, Targaryen_224, Teutsch_223, Tribute_220, Warpy_227, Watermoore_223, WhereRU_223,

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

-

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

- Amabiko_240, Battuta_234, Birchlyn_235, BoomerJR_233, Bordeaux_234, CeilingFan_240, Elmer_244, Enygma_243, Genie2_233, Gibbi_244, IchabodCrane_230, JimJam_243, Jollison_233, Karimac_236, KentuckyRacer_242, LukeCage_239, MindFlayer_229, Mugiwara_248, PumpkinSpice_239, Quaran19_236, Rikishi_244, SaltySpitoon_236, Sollertia_234, Spelly_241, Spilled_243, Stanimal_233, StarPlatinum_243, Starbow_233, TomSawyer_240, Tomas_236, Wipeout_226, Wofford_236, Yaboi_238,

Summary by start number:

Start 6:

- Found in 41 of 74 (55.4%) of genes in pham
- Manual Annotations of this start: 37 of 67
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anedea_237 (BE1), Angela_227 (BE1), Bartholomune_224 (BE1), BlueOtter_222 (BE1), Bmoc_229 (BE1), Braelyn_220 (BE1), Cross_223 (BE1), Cursive_227 (BE1), Daubenski_218 (BE1), EGole_228 (BE1), Evy_214 (BE1), HangryHippo_222 (BE1), Jay2Jay_230 (BE1), Larnav_224 (BE1), Leo04_224 (BE1), Liandry_224 (BE1), LilMartin_223 (BE1), Lululemon_221 (BE1), Marsus_236 (BE1), Mildred21_234 (BE1), MulchMansion_227 (BE1), Navo_218 (BE1), NootNoot_221 (BE1), PacManQ_221 (BE1), Paradiddles_216 (BE1), Peebs_221 (BE1), Pepperwood_224 (BE1), Persimmon_227 (BE1), PinkiePie_224 (BE1), Riptide_230 (BE1), Samisti12_228 (BE1), Scheme_227 (BE1), Shuckle_227 (BE1), Squillium_227 (BE1), Sushi23_225 (BE1), Targaryen_224 (BE1), Teutsch_223 (BE1), Tribute_220 (BE1), Warpy_227 (BE1), Watermoore_223 (BE1), WhereRU_223 (BE1),

Start 7:

- Found in 32 of 74 (43.2%) of genes in pham
- Manual Annotations of this start: 28 of 67
- Called 96.9% of time when present
- Phage (with cluster) where this start called: Amabiko_240 (BE2), Battuta_234 (BE2), Birchlyn_235 (BE2), BoomerJR_233 (BE2), Bordeaux_234 (BE2), CeilingFan_240 (BE2), Elmer_244 (BE2), Enygma_243 (BE2), Genie2_233 (BE2), Gibbi_244 (BE2), IchabodCrane_230 (BE2), JimJam_243 (BE2), Jollison_233 (BE2), Karimac_236 (BE2), KentuckyRacer_242 (BE2), LukeCage_239 (BE2), MindFlayer_229 (BE2), Mugiwara_248 (BE2), PumpkinSpice_239 (BE2), Quaran19_236 (BE2), Rikishi_244 (BE2), SaltySpitoon_236 (BE2), Sollertia_234 (BE2), Spelly_241 (BE2), Spilled_243 (BE2), Stanimal_233 (BE2), StarPlatinum_243 (BE2), TomSawyer_240 (BE2),

Wipeout_226 (BE2), Wofford_236 (BE2), Yaboi_238 (BE2),

Start 8:

- Found in 24 of 74 (32.4%) of genes in pham
- Manual Annotations of this start: 1 of 67
- Called 4.2% of time when present
- Phage (with cluster) where this start called: Starbow_233 (BE2),

Start 9:

- Found in 1 of 74 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 67
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tomas_236 (BE2),

Summary by clusters:

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

Info for manual annotations of cluster BE1:

- Start number 6 was manually annotated 37 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 7 was manually annotated 28 times for cluster BE2.
- Start number 8 was manually annotated 1 time for cluster BE2.
- Start number 9 was manually annotated 1 time for cluster BE2.

Gene Information:

Gene: Amabiko_240 Start: 111391, Stop: 111699, Start Num: 7

Candidate Starts for Amabiko_240:

(5, 111361), (Start: 7 @111391 has 28 MA's), (Start: 8 @111397 has 1 MA's), (11, 111418), (18, 111583), (19, 111586), (23, 111649),

Gene: Anedea_237 Start: 114868, Stop: 115173, Start Num: 6

Candidate Starts for Anedea_237:

(5, 114841), (Start: 6 @114868 has 37 MA's), (11, 114898), (22, 115099), (23, 115129),

Gene: Angela_227 Start: 113095, Stop: 113397, Start Num: 6

Candidate Starts for Angela_227:

(5, 113068), (Start: 6 @113095 has 37 MA's), (11, 113122), (22, 113323), (23, 113353),

Gene: Bartholomune_224 Start: 112848, Stop: 113156, Start Num: 6

Candidate Starts for Bartholomune_224:

(5, 112821), (Start: 6 @112848 has 37 MA's), (Start: 8 @112854 has 1 MA's), (11, 112875), (15, 112950), (22, 113076), (23, 113106),

Gene: Battuta_234 Start: 110706, Stop: 111014, Start Num: 7

Candidate Starts for Battuta_234:

(5, 110676), (Start: 7 @110706 has 28 MA's), (Start: 8 @110712 has 1 MA's), (11, 110733), (18, 110898), (19, 110901), (23, 110964),

Gene: Birchlyn_235 Start: 108639, Stop: 108947, Start Num: 7

Candidate Starts for Birchlyn_235:

(5, 108609), (Start: 7 @108639 has 28 MA's), (Start: 8 @108645 has 1 MA's), (11, 108666), (18, 108831), (19, 108834), (23, 108897),

Gene: BlueOtter_222 Start: 112984, Stop: 113292, Start Num: 6

Candidate Starts for BlueOtter_222:

(5, 112957), (Start: 6 @112984 has 37 MA's), (15, 113086), (22, 113212), (23, 113242),

Gene: Bmoc_229 Start: 113536, Stop: 113847, Start Num: 6

Candidate Starts for Bmoc_229:

(5, 113509), (Start: 6 @113536 has 37 MA's), (10, 113560), (11, 113563), (12, 113569), (18, 113728), (23, 113794),

Gene: BoomerJR_233 Start: 111307, Stop: 111612, Start Num: 7

Candidate Starts for BoomerJR_233:

(Start: 7 @111307 has 28 MA's), (11, 111334), (14, 111397), (23, 111565),

Gene: Bordeaux_234 Start: 111289, Stop: 111597, Start Num: 7

Candidate Starts for Bordeaux_234:

(5, 111259), (Start: 7 @111289 has 28 MA's), (Start: 8 @111295 has 1 MA's), (11, 111316), (18, 111481), (19, 111484), (23, 111547),

Gene: Braelyn_220 Start: 112495, Stop: 112803, Start Num: 6

Candidate Starts for Braelyn_220:

(5, 112468), (Start: 6 @112495 has 37 MA's), (11, 112522), (15, 112597), (21, 112714), (22, 112723), (23, 112753),

Gene: CeilingFan_240 Start: 112084, Stop: 112392, Start Num: 7

Candidate Starts for CeilingFan_240:

(5, 112054), (Start: 7 @112084 has 28 MA's), (Start: 8 @112090 has 1 MA's), (11, 112111), (18, 112276), (19, 112279), (23, 112342),

Gene: Cross_223 Start: 113629, Stop: 113937, Start Num: 6

Candidate Starts for Cross_223:

(5, 113602), (Start: 6 @113629 has 37 MA's), (15, 113731), (22, 113857), (23, 113887),

Gene: Cursive_227 Start: 113736, Stop: 114044, Start Num: 6

Candidate Starts for Cursive_227:

(5, 113709), (Start: 6 @113736 has 37 MA's), (15, 113838), (22, 113964), (23, 113994),

Gene: Daubenski_218 Start: 114118, Stop: 114420, Start Num: 6

Candidate Starts for Daubenski_218:

(5, 114091), (Start: 6 @114118 has 37 MA's), (10, 114142), (11, 114145), (22, 114346),

Gene: EGole_228 Start: 115820, Stop: 116128, Start Num: 6

Candidate Starts for EGole_228:

(5, 115793), (Start: 6 @115820 has 37 MA's), (15, 115922), (22, 116048), (23, 116078),

Gene: Elmer_244 Start: 114882, Stop: 115190, Start Num: 7

Candidate Starts for Elmer_244:

(5, 114852), (Start: 7 @114882 has 28 MA's), (11, 114909), (19, 115077), (21, 115101), (23, 115140),

Gene: Enygma_243 Start: 114092, Stop: 114400, Start Num: 7
Candidate Starts for Enygma_243:
(5, 114062), (Start: 7 @114092 has 28 MA's), (11, 114119), (18, 114284), (21, 114311), (23, 114350),

Gene: Evy_214 Start: 113803, Stop: 114114, Start Num: 6
Candidate Starts for Evy_214:
(5, 113776), (Start: 6 @113803 has 37 MA's), (10, 113827), (11, 113830), (12, 113836), (18, 113995),
(23, 114061),

Gene: Genie2_233 Start: 111432, Stop: 111740, Start Num: 7
Candidate Starts for Genie2_233:
(5, 111402), (Start: 7 @111432 has 28 MA's), (11, 111459), (14, 111522), (23, 111690),

Gene: Gibbi_244 Start: 111577, Stop: 111885, Start Num: 7
Candidate Starts for Gibbi_244:
(5, 111547), (Start: 7 @111577 has 28 MA's), (Start: 8 @111583 has 1 MA's), (11, 111604), (18,
111769), (19, 111772), (23, 111835),

Gene: HangryHippo_222 Start: 112984, Stop: 113292, Start Num: 6
Candidate Starts for HangryHippo_222:
(5, 112957), (Start: 6 @112984 has 37 MA's), (15, 113086), (22, 113212), (23, 113242),

Gene: IchabodCrane_230 Start: 111092, Stop: 111400, Start Num: 7
Candidate Starts for IchabodCrane_230:
(5, 111062), (Start: 7 @111092 has 28 MA's), (Start: 8 @111098 has 1 MA's), (11, 111119), (18,
111284), (19, 111287), (23, 111350),

Gene: Jay2Jay_230 Start: 113958, Stop: 114269, Start Num: 6
Candidate Starts for Jay2Jay_230:
(5, 113931), (Start: 6 @113958 has 37 MA's), (10, 113982), (11, 113985), (12, 113991), (18, 114150),
(23, 114216),

Gene: JimJam_243 Start: 113013, Stop: 113321, Start Num: 7
Candidate Starts for JimJam_243:
(5, 112983), (Start: 7 @113013 has 28 MA's), (Start: 8 @113019 has 1 MA's), (11, 113040), (18,
113205), (19, 113208), (23, 113271),

Gene: Jollison_233 Start: 111223, Stop: 111531, Start Num: 7
Candidate Starts for Jollison_233:
(5, 111193), (Start: 7 @111223 has 28 MA's), (Start: 8 @111229 has 1 MA's), (11, 111250), (18,
111415), (19, 111418), (23, 111481),

Gene: Karimac_236 Start: 111408, Stop: 111716, Start Num: 7
Candidate Starts for Karimac_236:
(5, 111378), (Start: 7 @111408 has 28 MA's), (Start: 8 @111414 has 1 MA's), (11, 111435), (18,
111600), (19, 111603), (23, 111666),

Gene: KentuckyRacer_242 Start: 112928, Stop: 113236, Start Num: 7
Candidate Starts for KentuckyRacer_242:
(5, 112898), (Start: 7 @112928 has 28 MA's), (Start: 8 @112934 has 1 MA's), (11, 112955), (18,
113120), (19, 113123), (23, 113186),

Gene: Larnav_224 Start: 113902, Stop: 114210, Start Num: 6

Candidate Starts for Larnav_224:

(5, 113875), (Start: 6 @113902 has 37 MA's), (15, 114004), (22, 114130), (23, 114160),

Gene: Leo04_224 Start: 114010, Stop: 114318, Start Num: 6

Candidate Starts for Leo04_224:

(5, 113983), (Start: 6 @114010 has 37 MA's), (15, 114112), (22, 114238), (23, 114268),

Gene: Liandry_224 Start: 113384, Stop: 113692, Start Num: 6

Candidate Starts for Liandry_224:

(5, 113357), (Start: 6 @113384 has 37 MA's), (11, 113411), (15, 113486), (21, 113603), (22, 113612), (23, 113642),

Gene: LilMartin_223 Start: 112035, Stop: 112337, Start Num: 6

Candidate Starts for LilMartin_223:

(5, 112008), (Start: 6 @112035 has 37 MA's), (11, 112062), (22, 112263), (23, 112293),

Gene: LukeCage_239 Start: 113253, Stop: 113561, Start Num: 7

Candidate Starts for LukeCage_239:

(Start: 7 @113253 has 28 MA's), (11, 113280), (18, 113445), (19, 113448), (23, 113511),

Gene: Lululemon_221 Start: 112789, Stop: 113097, Start Num: 6

Candidate Starts for Lululemon_221:

(5, 112762), (Start: 6 @112789 has 37 MA's), (15, 112891), (22, 113017), (23, 113047),

Gene: Marsus_236 Start: 113700, Stop: 114002, Start Num: 6

Candidate Starts for Marsus_236:

(5, 113673), (Start: 6 @113700 has 37 MA's), (11, 113727), (22, 113928), (23, 113958),

Gene: Mildred21_234 Start: 112174, Stop: 112482, Start Num: 6

Candidate Starts for Mildred21_234:

(5, 112147), (Start: 6 @112174 has 37 MA's), (11, 112201), (22, 112402), (23, 112432),

Gene: MindFlayer_229 Start: 110608, Stop: 110916, Start Num: 7

Candidate Starts for MindFlayer_229:

(5, 110578), (Start: 7 @110608 has 28 MA's), (Start: 8 @110614 has 1 MA's), (11, 110635), (18, 110800), (19, 110803), (23, 110866),

Gene: Mugiwara_248 Start: 113791, Stop: 114099, Start Num: 7

Candidate Starts for Mugiwara_248:

(5, 113761), (Start: 7 @113791 has 28 MA's), (11, 113818), (18, 113983), (19, 113986), (23, 114049),

Gene: MulchMansion_227 Start: 113669, Stop: 113971, Start Num: 6

Candidate Starts for MulchMansion_227:

(5, 113642), (Start: 6 @113669 has 37 MA's), (11, 113696), (22, 113897), (23, 113927),

Gene: Navo_218 Start: 111699, Stop: 112007, Start Num: 6

Candidate Starts for Navo_218:

(5, 111672), (Start: 6 @111699 has 37 MA's), (Start: 8 @111705 has 1 MA's), (11, 111726), (15, 111801), (22, 111927), (23, 111957),

Gene: NootNoot_221 Start: 112229, Stop: 112537, Start Num: 6

Candidate Starts for NootNoot_221:

(5, 112202), (Start: 6 @112229 has 37 MA's), (11, 112256), (15, 112331), (21, 112448), (22, 112457), (23, 112487),

Gene: PacManQ_221 Start: 112789, Stop: 113097, Start Num: 6

Candidate Starts for PacManQ_221:

(5, 112762), (Start: 6 @112789 has 37 MA's), (15, 112891), (22, 113017), (23, 113047),

Gene: Paradiddles_216 Start: 114604, Stop: 114912, Start Num: 6

Candidate Starts for Paradiddles_216:

(5, 114577), (Start: 6 @114604 has 37 MA's), (11, 114631), (22, 114832), (23, 114862),

Gene: Peebs_221 Start: 113873, Stop: 114181, Start Num: 6

Candidate Starts for Peebs_221:

(5, 113846), (Start: 6 @113873 has 37 MA's), (15, 113975), (22, 114101), (23, 114131),

Gene: Pepperwood_224 Start: 113681, Stop: 113989, Start Num: 6

Candidate Starts for Pepperwood_224:

(5, 113654), (Start: 6 @113681 has 37 MA's), (15, 113783), (22, 113909), (23, 113939),

Gene: Persimmon_227 Start: 112717, Stop: 113025, Start Num: 6

Candidate Starts for Persimmon_227:

(5, 112690), (Start: 6 @112717 has 37 MA's), (Start: 8 @112723 has 1 MA's), (11, 112744), (15, 112819), (22, 112945), (23, 112975),

Gene: PinkiePie_224 Start: 113384, Stop: 113692, Start Num: 6

Candidate Starts for PinkiePie_224:

(5, 113357), (Start: 6 @113384 has 37 MA's), (11, 113411), (15, 113486), (21, 113603), (22, 113612), (23, 113642),

Gene: PumpkinSpice_239 Start: 111829, Stop: 112137, Start Num: 7

Candidate Starts for PumpkinSpice_239:

(5, 111799), (Start: 7 @111829 has 28 MA's), (Start: 8 @111835 has 1 MA's), (11, 111856), (18, 112021), (19, 112024), (23, 112087),

Gene: Quaran19_236 Start: 111270, Stop: 111578, Start Num: 7

Candidate Starts for Quaran19_236:

(5, 111240), (Start: 7 @111270 has 28 MA's), (Start: 8 @111276 has 1 MA's), (11, 111297), (18, 111462), (19, 111465), (23, 111528),

Gene: Rikishi_244 Start: 111551, Stop: 111859, Start Num: 7

Candidate Starts for Rikishi_244:

(5, 111521), (Start: 7 @111551 has 28 MA's), (Start: 8 @111557 has 1 MA's), (11, 111578), (18, 111743), (19, 111746), (23, 111809),

Gene: Riptide_230 Start: 112398, Stop: 112703, Start Num: 6

Candidate Starts for Riptide_230:

(5, 112371), (Start: 6 @112398 has 37 MA's), (11, 112428), (22, 112629), (23, 112659),

Gene: SaltySpittoon_236 Start: 110812, Stop: 111120, Start Num: 7

Candidate Starts for SaltySpittoon_236:

(5, 110782), (Start: 7 @110812 has 28 MA's), (Start: 8 @110818 has 1 MA's), (11, 110839), (18, 111004), (19, 111007), (23, 111070),

Gene: Samisti12_228 Start: 115275, Stop: 115583, Start Num: 6
Candidate Starts for Samisti12_228:
(5, 115248), (Start: 6 @115275 has 37 MA's), (13, 115326), (15, 115377), (17, 115419), (22, 115503),
(23, 115533),

Gene: Scheme_227 Start: 114920, Stop: 115228, Start Num: 6
Candidate Starts for Scheme_227:
(5, 114893), (Start: 6 @114920 has 37 MA's), (15, 115022), (22, 115148), (23, 115178),

Gene: Shuckle_227 Start: 114233, Stop: 114541, Start Num: 6
Candidate Starts for Shuckle_227:
(5, 114206), (Start: 6 @114233 has 37 MA's), (15, 114335), (17, 114377), (22, 114461), (23, 114491),

Gene: Sollertia_234 Start: 111421, Stop: 111729, Start Num: 7
Candidate Starts for Sollertia_234:
(5, 111391), (Start: 7 @111421 has 28 MA's), (11, 111448), (14, 111511), (23, 111679),

Gene: Spelly_241 Start: 110741, Stop: 111049, Start Num: 7
Candidate Starts for Spelly_241:
(5, 110711), (Start: 7 @110741 has 28 MA's), (Start: 8 @110747 has 1 MA's), (11, 110768), (18,
110933), (19, 110936), (23, 110999),

Gene: Spilled_243 Start: 111945, Stop: 112253, Start Num: 7
Candidate Starts for Spilled_243:
(5, 111915), (Start: 7 @111945 has 28 MA's), (Start: 8 @111951 has 1 MA's), (11, 111972), (18,
112137), (19, 112140), (23, 112203),

Gene: Squillium_227 Start: 113386, Stop: 113694, Start Num: 6
Candidate Starts for Squillium_227:
(5, 113359), (Start: 6 @113386 has 37 MA's), (11, 113413), (15, 113488), (21, 113605), (22, 113614),
(23, 113644),

Gene: Stanimal_233 Start: 111793, Stop: 112098, Start Num: 7
Candidate Starts for Stanimal_233:
(Start: 7 @111793 has 28 MA's), (11, 111820), (14, 111883), (23, 112051),

Gene: StarPlatinum_243 Start: 113753, Stop: 114061, Start Num: 7
Candidate Starts for StarPlatinum_243:
(Start: 7 @113753 has 28 MA's), (11, 113780), (18, 113945), (19, 113948), (23, 114011),

Gene: Starbow_233 Start: 110791, Stop: 111093, Start Num: 8
Candidate Starts for Starbow_233:
(5, 110755), (Start: 7 @110785 has 28 MA's), (Start: 8 @110791 has 1 MA's), (11, 110812), (18,
110977), (19, 110980), (23, 111043),

Gene: Sushi23_225 Start: 114739, Stop: 115047, Start Num: 6
Candidate Starts for Sushi23_225:
(5, 114712), (Start: 6 @114739 has 37 MA's), (15, 114841), (22, 114967), (23, 114997),

Gene: Targaryen_224 Start: 114911, Stop: 115222, Start Num: 6
Candidate Starts for Targaryen_224:
(5, 114884), (Start: 6 @114911 has 37 MA's), (10, 114935), (11, 114938), (12, 114944), (18, 115103),
(23, 115169),

Gene: Teutsch_223 Start: 114104, Stop: 114412, Start Num: 6

Candidate Starts for Teutsch_223:

(5, 114077), (Start: 6 @114104 has 37 MA's), (15, 114206), (22, 114332), (23, 114362),

Gene: TomSawyer_240 Start: 113256, Stop: 113564, Start Num: 7

Candidate Starts for TomSawyer_240:

(5, 113226), (Start: 7 @113256 has 28 MA's), (Start: 8 @113262 has 1 MA's), (11, 113283), (18, 113448), (19, 113451), (23, 113514),

Gene: Tomas_236 Start: 115186, Stop: 115470, Start Num: 9

Candidate Starts for Tomas_236:

(1, 115075), (2, 115081), (3, 115120), (4, 115135), (Start: 9 @115186 has 1 MA's), (16, 115300), (20, 115360),

Gene: Tribute_220 Start: 114269, Stop: 114577, Start Num: 6

Candidate Starts for Tribute_220:

(5, 114242), (Start: 6 @114269 has 37 MA's), (15, 114371), (22, 114497), (23, 114527),

Gene: Warpy_227 Start: 113396, Stop: 113707, Start Num: 6

Candidate Starts for Warpy_227:

(5, 113369), (Start: 6 @113396 has 37 MA's), (10, 113420), (11, 113423), (12, 113429), (18, 113588), (23, 113654),

Gene: Watermoore_223 Start: 114627, Stop: 114935, Start Num: 6

Candidate Starts for Watermoore_223:

(5, 114600), (Start: 6 @114627 has 37 MA's), (15, 114729), (22, 114855), (23, 114885),

Gene: WhereRU_223 Start: 112878, Stop: 113186, Start Num: 6

Candidate Starts for WhereRU_223:

(5, 112851), (Start: 6 @112878 has 37 MA's), (11, 112905), (15, 112980), (21, 113097), (22, 113106), (23, 113136),

Gene: Wipeout_226 Start: 112208, Stop: 112516, Start Num: 7

Candidate Starts for Wipeout_226:

(5, 112178), (Start: 7 @112208 has 28 MA's), (Start: 8 @112214 has 1 MA's), (11, 112235), (18, 112400), (19, 112403), (23, 112466),

Gene: Wofford_236 Start: 114496, Stop: 114804, Start Num: 7

Candidate Starts for Wofford_236:

(5, 114466), (Start: 7 @114496 has 28 MA's), (11, 114523), (19, 114691), (21, 114715), (23, 114754),

Gene: Yaboi_238 Start: 111356, Stop: 111661, Start Num: 7

Candidate Starts for Yaboi_238:

(Start: 7 @111356 has 28 MA's), (11, 111383), (14, 111446), (23, 111614),