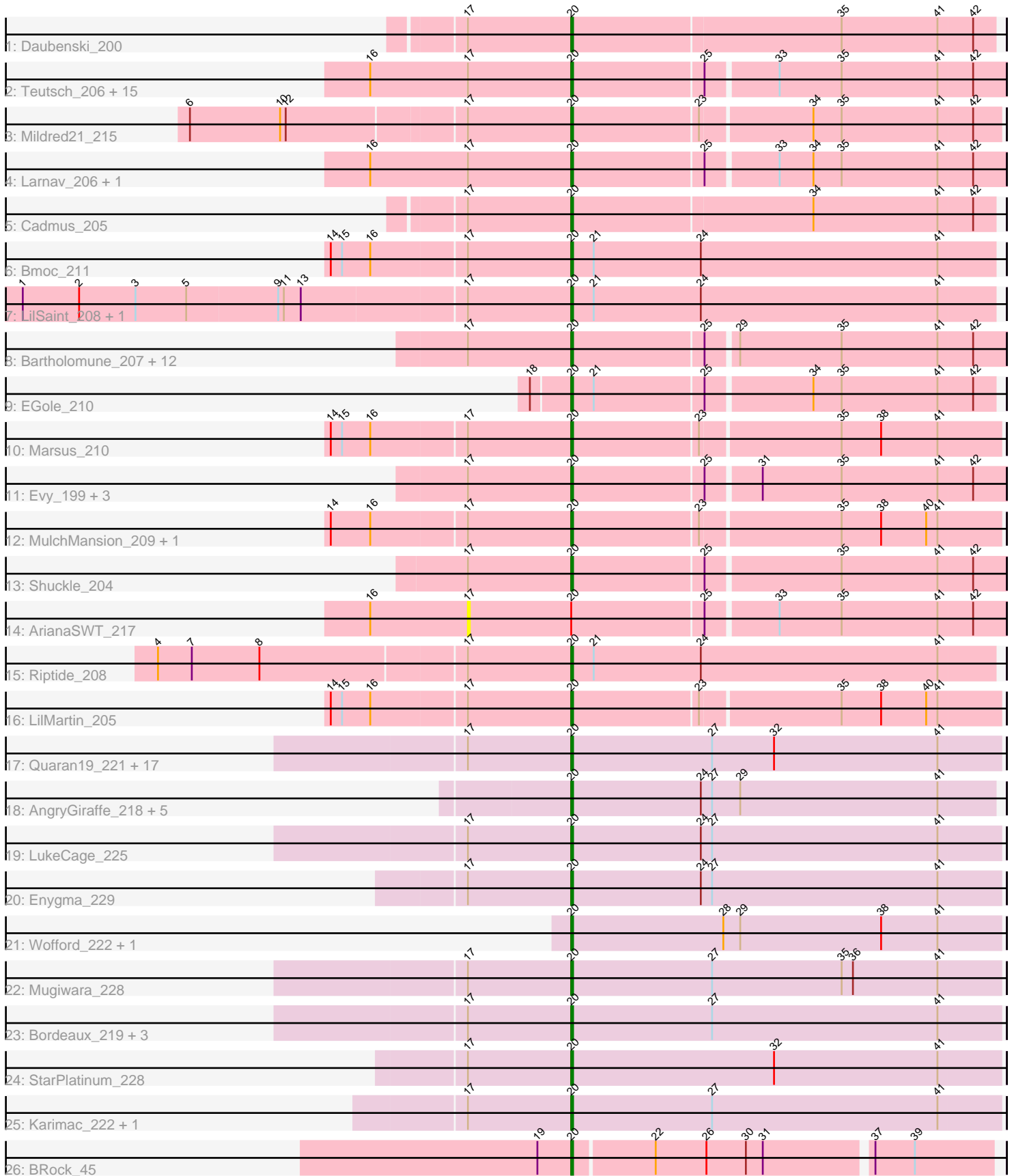


Pham 308449



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 308449 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308449 has 86 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Daubenski_200
- Track 2 : Teutsch_206, Lululemon_203, Tribute_204, PacManQ_203, Watermoore_205, Sushi23_206, HangryHippo_204, WashU_210, Peebs_204, Samisti12_210, Scheme_209, BlueOtter_204, Cursive_208, Pepperwood_206, Cross_205, Leo04_208
- Track 3 : Mildred21_215
- Track 4 : Larnav_206, Coogler_204
- Track 5 : Cadmus_205
- Track 6 : Bmoc_211
- Track 7 : LilSaint_208, Anedea_220
- Track 8 : Bartholomune_207, Davielle_207, PinkiePie_206, Persimmon_209, Eliot67_207, Braelyn_204, WhereRU_206, Navo_201, NootNoot_203, Liandry_206, Squillium_209, FreddyDRoo_209, PynkPanther_219
- Track 9 : EGole_210
- Track 10 : Marsus_210
- Track 11 : Evy_199, Warpy_210, Jay2Jay_212, Targaryen_206
- Track 12 : MulchMansion_209, Angela_208
- Track 13 : Shuckle_204
- Track 14 : ArianaSWT_217
- Track 15 : Riptide_208
- Track 16 : LilMartin_205
- Track 17 : Quarant19_221, Spilled_228, PumpkinSpice_224, Birchlyn_220, IchabodCrane_216, Starbow_218, SaltySpittoon_221, Gibbi_229, Spelly_226, AcciDwight_229, Amabiko_225, Daisy123_229, JimJam_228, Jollison_218, KentuckyRacer_227, Rikishi_222, CeilingFan_225, MindFlayer_214
- Track 18 : AngryGiraffe_218, Sollertia_220, Genie2_218, BoomerJR_218, Yaboi_224, Stanimal_219
- Track 19 : LukeCage_225
- Track 20 : Enygma_229
- Track 21 : Wofford_222, Elmer_231
- Track 22 : Mugiwara_228
- Track 23 : Bordeaux_219, Wipeout_212, TomSawyer_225, Battuta_219
- Track 24 : StarPlatinum_228
- Track 25 : Karimac_222, Brizzy_220
- Track 26 : BRock_45

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

The start number called the most often in the published annotations is 20, it was called in 78 of the 78 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight_229, Amabiko_225, Anedea_220, Angela_208, AngryGiraffe_218, BRock_45, Bartholomune_207, Battuta_219, Birchlyn_220, BlueOtter_204, Bmoc_211, BoomerJR_218, Bordeaux_219, Braelyn_204, Brizzy_220, Cadmus_205, CeilingFan_225, Coogler_204, Cross_205, Cursive_208, Daisy123_229, Daubenski_200, Davielle_207, EGole_210, Eliot67_207, Elmer_231, Enygma_229, Evy_199, FreddyDRoo_209, Genie2_218, Gibbi_229, HangryHippo_204, IchabodCrane_216, Jay2Jay_212, JimJam_228, Jollison_218, Karimac_222, KentuckyRacer_227, Larnav_206, Leo04_208, Liandry_206, LilMartin_205, LilSaint_208, LukeCage_225, Lululemon_203, Marsus_210, Mildred21_215, MindFlayer_214, Mugiwara_228, MulchMansion_209, Navo_201, NootNoot_203, PacManQ_203, Peebs_204, Pepperwood_206, Persimmon_209, PinkiePie_206, PumpkinSpice_224, PynkPanther_219, Quarant19_221, Rikishi_222, Riptide_208, SaltySpittoon_221, Samisti12_210, Scheme_209, Shuckle_204, Sollertia_220, Spelly_226, Spilled_228, Squillium_209, Stanimal_219, StarPlatinum_228, Starbow_218, Sushi23_206, Targaryen_206, Teutsch_206, TomSawyer_225, Tribute_204, Warpy_210, WashU_210, Watermoore_205, WhereRU_206, Wipeout_212, Wofford_222, Yaboi_224,

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

- ArianaSWT_217,

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

-

Summary by start number:

Start 17:

- Found in 76 of 86 (88.4%) of genes in pham
- No Manual Annotations of this start.
- Called 1.3% of time when present
- Phage (with cluster) where this start called: ArianaSWT_217 (BE1),

Start 20:

- Found in 86 of 86 (100.0%) of genes in pham
- Manual Annotations of this start: 78 of 78
- Called 98.8% of time when present
- Phage (with cluster) where this start called: AcciDwight_229 (BE2), Amabiko_225 (BE2), Anedea_220 (BE1), Angela_208 (BE1), AngryGiraffe_218 (BE2), BRock_45 (BS), Bartholomune_207 (BE1), Battuta_219 (BE2), Birchlyn_220 (BE2), BlueOtter_204 (BE1), Bmoc_211 (BE1), BoomerJR_218 (BE2), Bordeaux_219 (BE2), Braelyn_204 (BE1), Brizzy_220 (BE2), Cadmus_205 (BE1), CeilingFan_225 (BE2), Coogler_204 (BE1), Cross_205 (BE1), Cursive_208 (BE1), Daisy123_229 (BE2), Daubenski_200 (BE1), Davielle_207 (BE1), EGole_210 (BE1), Eliot67_207 (BE1), Elmer_231 (BE2), Enygma_229 (BE2), Evy_199 (BE1), FreddyDRoo_209 (BE1), Genie2_218 (BE2), Gibbi_229 (BE2), HangryHippo_204 (BE1), IchabodCrane_216 (BE2), Jay2Jay_212 (BE1), JimJam_228 (BE2), Jollison_218 (BE2), Karimac_222

(BE2), KentuckyRacer_227 (BE2), Larnav_206 (BE1), Leo04_208 (BE1), Liandry_206 (BE1), LilMartin_205 (BE1), LilSaint_208 (BE1), LukeCage_225 (BE2), Lululemon_203 (BE1), Marsus_210 (BE1), Mildred21_215 (BE1), MindFlayer_214 (BE2), Mugiwara_228 (BE2), MulchMansion_209 (BE1), Navo_201 (BE1), NootNoot_203 (BE1), PacManQ_203 (BE1), Peebs_204 (BE1), Pepperwood_206 (BE1), Persimmon_209 (BE1), PinkiePie_206 (BE1), PumpkinSpice_224 (BE2), PynkPanther_219 (BE1), Quarant19_221 (BE2), Rikishi_222 (BE2), Riptide_208 (BE1), SaltySpittoon_221 (BE2), Samisti12_210 (BE1), Scheme_209 (BE1), Shuckle_204 (BE1), Sollertia_220 (BE2), Spelly_226 (BE2), Spilled_228 (BE2), Squillium_209 (BE1), Stanimal_219 (BE2), StarPlatinum_228 (BE2), Starbow_218 (BE2), Sushi23_206 (BE1), Targaryen_206 (BE1), Teutsch_206 (BE1), TomSawyer_225 (BE2), Tribute_204 (BE1), Warpy_210 (BE1), WashU_210 (BE1), Watermoore_205 (BE1), WhereRU_206 (BE1), Wipeout_212 (BE2), Wofford_222 (BE2), Yaboi_224 (BE2),

Summary by clusters:

There are 3 clusters represented in this pham: BE2, BE1, BS,

Info for manual annotations of cluster BE1:

- Start number 20 was manually annotated 44 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 20 was manually annotated 33 times for cluster BE2.

Info for manual annotations of cluster BS:

- Start number 20 was manually annotated 1 time for cluster BS.

Gene Information:

Gene: AcciDwight_229 Start: 106907, Stop: 107134, Start Num: 20

Candidate Starts for AcciDwight_229:

(17, 106853), (Start: 20 @106907 has 78 MA's), (27, 106982), (32, 107015), (41, 107102),

Gene: Amabiko_225 Start: 106725, Stop: 106952, Start Num: 20

Candidate Starts for Amabiko_225:

(17, 106671), (Start: 20 @106725 has 78 MA's), (27, 106800), (32, 106833), (41, 106920),

Gene: Anedea_220 Start: 107420, Stop: 107644, Start Num: 20

Candidate Starts for Anedea_220:

(1, 107135), (2, 107165), (3, 107195), (5, 107222), (9, 107270), (11, 107273), (13, 107282), (17, 107366), (Start: 20 @107420 has 78 MA's), (21, 107432), (24, 107489), (41, 107615),

Gene: Angela_208 Start: 104813, Stop: 105034, Start Num: 20

Candidate Starts for Angela_208:

(14, 104690), (16, 104711), (17, 104759), (Start: 20 @104813 has 78 MA's), (23, 104879), (35, 104951), (38, 104972), (40, 104996), (41, 105002),

Gene: AngryGiraffe_218 Start: 106382, Stop: 106606, Start Num: 20

Candidate Starts for AngryGiraffe_218:

(Start: 20 @106382 has 78 MA's), (24, 106451), (27, 106457), (29, 106472), (41, 106577),

Gene: ArianaSWT_217 Start: 106885, Stop: 107163, Start Num: 17

Candidate Starts for ArianaSWT_217:

(16, 106834), (17, 106885), (Start: 20 @106939 has 78 MA's), (25, 107008), (33, 107044), (35, 107077), (41, 107128), (42, 107146),

Gene: BRock_45 Start: 15607, Stop: 15822, Start Num: 20

Candidate Starts for BRock_45:

(19, 15589), (Start: 20 @15607 has 78 MA's), (22, 15649), (26, 15676), (30, 15697), (31, 15706), (37, 15760), (39, 15781),

Gene: Bartholomune_207 Start: 104979, Stop: 105203, Start Num: 20

Candidate Starts for Bartholomune_207:

(17, 104925), (Start: 20 @104979 has 78 MA's), (25, 105048), (29, 105063), (35, 105117), (41, 105168), (42, 105186),

Gene: Battuta_219 Start: 106041, Stop: 106268, Start Num: 20

Candidate Starts for Battuta_219:

(17, 105987), (Start: 20 @106041 has 78 MA's), (27, 106116), (41, 106236),

Gene: Birchlyn_220 Start: 103973, Stop: 104200, Start Num: 20

Candidate Starts for Birchlyn_220:

(17, 103919), (Start: 20 @103973 has 78 MA's), (27, 104048), (32, 104081), (41, 104168),

Gene: BlueOtter_204 Start: 105192, Stop: 105416, Start Num: 20

Candidate Starts for BlueOtter_204:

(16, 105087), (17, 105138), (Start: 20 @105192 has 78 MA's), (25, 105261), (33, 105297), (35, 105330), (41, 105381), (42, 105399),

Gene: Bmoc_211 Start: 105620, Stop: 105844, Start Num: 20

Candidate Starts for Bmoc_211:

(14, 105497), (15, 105503), (16, 105518), (17, 105566), (Start: 20 @105620 has 78 MA's), (21, 105632), (24, 105689), (41, 105815),

Gene: BoomerJR_218 Start: 106815, Stop: 107039, Start Num: 20

Candidate Starts for BoomerJR_218:

(Start: 20 @106815 has 78 MA's), (24, 106884), (27, 106890), (29, 106905), (41, 107010),

Gene: Bordeaux_219 Start: 106624, Stop: 106851, Start Num: 20

Candidate Starts for Bordeaux_219:

(17, 106570), (Start: 20 @106624 has 78 MA's), (27, 106699), (41, 106819),

Gene: Braelyn_204 Start: 104626, Stop: 104850, Start Num: 20

Candidate Starts for Braelyn_204:

(17, 104572), (Start: 20 @104626 has 78 MA's), (25, 104695), (29, 104710), (35, 104764), (41, 104815), (42, 104833),

Gene: Brizzy_220 Start: 107151, Stop: 107378, Start Num: 20

Candidate Starts for Brizzy_220:

(17, 107097), (Start: 20 @107151 has 78 MA's), (27, 107226), (41, 107346),

Gene: Cadmus_205 Start: 106312, Stop: 106533, Start Num: 20

Candidate Starts for Cadmus_205:

(17, 106258), (Start: 20 @106312 has 78 MA's), (34, 106438), (41, 106504), (42, 106522),

Gene: CeilingFan_225 Start: 107418, Stop: 107645, Start Num: 20

Candidate Starts for CeilingFan_225:

(17, 107364), (Start: 20 @107418 has 78 MA's), (27, 107493), (32, 107526), (41, 107613),

Gene: Coogler_204 Start: 105862, Stop: 106086, Start Num: 20

Candidate Starts for Coogler_204:

(16, 105757), (17, 105808), (Start: 20 @105862 has 78 MA's), (25, 105931), (33, 105967), (34, 105985), (35, 106000), (41, 106051), (42, 106069),

Gene: Cross_205 Start: 105837, Stop: 106061, Start Num: 20

Candidate Starts for Cross_205:

(16, 105732), (17, 105783), (Start: 20 @105837 has 78 MA's), (25, 105906), (33, 105942), (35, 105975), (41, 106026), (42, 106044),

Gene: Cursive_208 Start: 105521, Stop: 105745, Start Num: 20

Candidate Starts for Cursive_208:

(16, 105416), (17, 105467), (Start: 20 @105521 has 78 MA's), (25, 105590), (33, 105626), (35, 105659), (41, 105710), (42, 105728),

Gene: Daisy123_229 Start: 107280, Stop: 107507, Start Num: 20

Candidate Starts for Daisy123_229:

(17, 107226), (Start: 20 @107280 has 78 MA's), (27, 107355), (32, 107388), (41, 107475),

Gene: Daubenski_200 Start: 106207, Stop: 106428, Start Num: 20

Candidate Starts for Daubenski_200:

(17, 106153), (Start: 20 @106207 has 78 MA's), (35, 106348), (41, 106399), (42, 106417),

Gene: Davielle_207 Start: 105024, Stop: 105248, Start Num: 20

Candidate Starts for Davielle_207:

(17, 104970), (Start: 20 @105024 has 78 MA's), (25, 105093), (29, 105108), (35, 105162), (41, 105213), (42, 105231),

Gene: EGole_210 Start: 107815, Stop: 108033, Start Num: 20

Candidate Starts for EGole_210:

(18, 107797), (Start: 20 @107815 has 78 MA's), (21, 107827), (25, 107884), (34, 107938), (35, 107953), (41, 108004), (42, 108022),

Gene: Eliot67_207 Start: 104591, Stop: 104815, Start Num: 20

Candidate Starts for Eliot67_207:

(17, 104537), (Start: 20 @104591 has 78 MA's), (25, 104660), (29, 104675), (35, 104729), (41, 104780), (42, 104798),

Gene: Elmer_231 Start: 110367, Stop: 110594, Start Num: 20

Candidate Starts for Elmer_231:

(Start: 20 @110367 has 78 MA's), (28, 110448), (29, 110457), (38, 110532), (41, 110562),

Gene: Enygma_229 Start: 109827, Stop: 110054, Start Num: 20

Candidate Starts for Enygma_229:

(17, 109773), (Start: 20 @109827 has 78 MA's), (24, 109896), (27, 109902), (41, 110022),

Gene: Evy_199 Start: 106304, Stop: 106528, Start Num: 20

Candidate Starts for Evy_199:

(17, 106250), (Start: 20 @106304 has 78 MA's), (25, 106373), (31, 106400), (35, 106442), (41, 106493), (42, 106511),

Gene: FreddyDRoo_209 Start: 104591, Stop: 104815, Start Num: 20

Candidate Starts for FreddyDRoo_209:

(17, 104537), (Start: 20 @104591 has 78 MA's), (25, 104660), (29, 104675), (35, 104729), (41, 104780), (42, 104798),

Gene: Genie2_218 Start: 106940, Stop: 107164, Start Num: 20

Candidate Starts for Genie2_218:

(Start: 20 @106940 has 78 MA's), (24, 107009), (27, 107015), (29, 107030), (41, 107135),

Gene: Gibbi_229 Start: 106911, Stop: 107138, Start Num: 20

Candidate Starts for Gibbi_229:

(17, 106857), (Start: 20 @106911 has 78 MA's), (27, 106986), (32, 107019), (41, 107106),

Gene: HangryHippo_204 Start: 105192, Stop: 105416, Start Num: 20

Candidate Starts for HangryHippo_204:

(16, 105087), (17, 105138), (Start: 20 @105192 has 78 MA's), (25, 105261), (33, 105297), (35, 105330), (41, 105381), (42, 105399),

Gene: IchabodCrane_216 Start: 106426, Stop: 106653, Start Num: 20

Candidate Starts for IchabodCrane_216:

(17, 106372), (Start: 20 @106426 has 78 MA's), (27, 106501), (32, 106534), (41, 106621),

Gene: Jay2Jay_212 Start: 106459, Stop: 106683, Start Num: 20

Candidate Starts for Jay2Jay_212:

(17, 106405), (Start: 20 @106459 has 78 MA's), (25, 106528), (31, 106555), (35, 106597), (41, 106648), (42, 106666),

Gene: JimJam_228 Start: 108347, Stop: 108574, Start Num: 20

Candidate Starts for JimJam_228:

(17, 108293), (Start: 20 @108347 has 78 MA's), (27, 108422), (32, 108455), (41, 108542),

Gene: Jollison_218 Start: 106557, Stop: 106784, Start Num: 20

Candidate Starts for Jollison_218:

(17, 106503), (Start: 20 @106557 has 78 MA's), (27, 106632), (32, 106665), (41, 106752),

Gene: Karimac_222 Start: 106742, Stop: 106969, Start Num: 20

Candidate Starts for Karimac_222:

(17, 106688), (Start: 20 @106742 has 78 MA's), (27, 106817), (41, 106937),

Gene: KentuckyRacer_227 Start: 108262, Stop: 108489, Start Num: 20

Candidate Starts for KentuckyRacer_227:

(17, 108208), (Start: 20 @108262 has 78 MA's), (27, 108337), (32, 108370), (41, 108457),

Gene: Larnav_206 Start: 105931, Stop: 106155, Start Num: 20

Candidate Starts for Larnav_206:

(16, 105826), (17, 105877), (Start: 20 @105931 has 78 MA's), (25, 106000), (33, 106036), (34, 106054), (35, 106069), (41, 106120), (42, 106138),

Gene: Leo04_208 Start: 106496, Stop: 106720, Start Num: 20

Candidate Starts for Leo04_208:

(16, 106391), (17, 106442), (Start: 20 @106496 has 78 MA's), (25, 106565), (33, 106601), (35, 106634), (41, 106685), (42, 106703),

Gene: Liandry_206 Start: 105298, Stop: 105522, Start Num: 20

Candidate Starts for Liandry_206:

(17, 105244), (Start: 20 @105298 has 78 MA's), (25, 105367), (29, 105382), (35, 105436), (41, 105487), (42, 105505),

Gene: LilMartin_205 Start: 104177, Stop: 104398, Start Num: 20

Candidate Starts for LilMartin_205:

(14, 104054), (15, 104060), (16, 104075), (17, 104123), (Start: 20 @104177 has 78 MA's), (23, 104243), (35, 104315), (38, 104336), (40, 104360), (41, 104366),

Gene: LilSaint_208 Start: 105792, Stop: 106016, Start Num: 20

Candidate Starts for LilSaint_208:

(1, 105507), (2, 105537), (3, 105567), (5, 105594), (9, 105642), (11, 105645), (13, 105654), (17, 105738), (Start: 20 @105792 has 78 MA's), (21, 105804), (24, 105861), (41, 105987),

Gene: LukeCage_225 Start: 108793, Stop: 109020, Start Num: 20

Candidate Starts for LukeCage_225:

(17, 108739), (Start: 20 @108793 has 78 MA's), (24, 108862), (27, 108868), (41, 108988),

Gene: Lululemon_203 Start: 104573, Stop: 104797, Start Num: 20

Candidate Starts for Lululemon_203:

(16, 104468), (17, 104519), (Start: 20 @104573 has 78 MA's), (25, 104642), (33, 104678), (35, 104711), (41, 104762), (42, 104780),

Gene: Marsus_210 Start: 105921, Stop: 106142, Start Num: 20

Candidate Starts for Marsus_210:

(14, 105798), (15, 105804), (16, 105819), (17, 105867), (Start: 20 @105921 has 78 MA's), (23, 105987), (35, 106059), (38, 106080), (41, 106110),

Gene: Mildred21_215 Start: 103945, Stop: 104166, Start Num: 20

Candidate Starts for Mildred21_215:

(6, 103750), (10, 103798), (12, 103801), (17, 103891), (Start: 20 @103945 has 78 MA's), (23, 104011), (34, 104068), (35, 104083), (41, 104134), (42, 104152),

Gene: MindFlayer_214 Start: 105942, Stop: 106169, Start Num: 20

Candidate Starts for MindFlayer_214:

(17, 105888), (Start: 20 @105942 has 78 MA's), (27, 106017), (32, 106050), (41, 106137),

Gene: Mugiwara_228 Start: 109243, Stop: 109470, Start Num: 20

Candidate Starts for Mugiwara_228:

(17, 109189), (Start: 20 @109243 has 78 MA's), (27, 109318), (35, 109387), (36, 109393), (41, 109438),

Gene: MulchMansion_209 Start: 105811, Stop: 106032, Start Num: 20

Candidate Starts for MulchMansion_209:

(14, 105688), (16, 105709), (17, 105757), (Start: 20 @105811 has 78 MA's), (23, 105877), (35, 105949), (38, 105970), (40, 105994), (41, 106000),

Gene: Navo_201 Start: 103830, Stop: 104054, Start Num: 20

Candidate Starts for Navo_201:

(17, 103776), (Start: 20 @103830 has 78 MA's), (25, 103899), (29, 103914), (35, 103968), (41, 104019), (42, 104037),

Gene: NootNoot_203 Start: 104110, Stop: 104334, Start Num: 20

Candidate Starts for NootNoot_203:

(17, 104056), (Start: 20 @104110 has 78 MA's), (25, 104179), (29, 104194), (35, 104248), (41, 104299), (42, 104317),

Gene: PacManQ_203 Start: 104573, Stop: 104797, Start Num: 20

Candidate Starts for PacManQ_203:

(16, 104468), (17, 104519), (Start: 20 @104573 has 78 MA's), (25, 104642), (33, 104678), (35, 104711), (41, 104762), (42, 104780),

Gene: Peebs_204 Start: 105902, Stop: 106126, Start Num: 20

Candidate Starts for Peebs_204:

(16, 105797), (17, 105848), (Start: 20 @105902 has 78 MA's), (25, 105971), (33, 106007), (35, 106040), (41, 106091), (42, 106109),

Gene: Pepperwood_206 Start: 105859, Stop: 106083, Start Num: 20

Candidate Starts for Pepperwood_206:

(16, 105754), (17, 105805), (Start: 20 @105859 has 78 MA's), (25, 105928), (33, 105964), (35, 105997), (41, 106048), (42, 106066),

Gene: Persimmon_209 Start: 104848, Stop: 105072, Start Num: 20

Candidate Starts for Persimmon_209:

(17, 104794), (Start: 20 @104848 has 78 MA's), (25, 104917), (29, 104932), (35, 104986), (41, 105037), (42, 105055),

Gene: PinkiePie_206 Start: 105298, Stop: 105522, Start Num: 20

Candidate Starts for PinkiePie_206:

(17, 105244), (Start: 20 @105298 has 78 MA's), (25, 105367), (29, 105382), (35, 105436), (41, 105487), (42, 105505),

Gene: PumpkinSpice_224 Start: 107163, Stop: 107390, Start Num: 20

Candidate Starts for PumpkinSpice_224:

(17, 107109), (Start: 20 @107163 has 78 MA's), (27, 107238), (32, 107271), (41, 107358),

Gene: PynkPanther_219 Start: 106051, Stop: 106275, Start Num: 20

Candidate Starts for PynkPanther_219:

(17, 105997), (Start: 20 @106051 has 78 MA's), (25, 106120), (29, 106135), (35, 106189), (41, 106240), (42, 106258),

Gene: Quaran19_221 Start: 106604, Stop: 106831, Start Num: 20

Candidate Starts for Quaran19_221:

(17, 106550), (Start: 20 @106604 has 78 MA's), (27, 106679), (32, 106712), (41, 106799),

Gene: Rikishi_222 Start: 106885, Stop: 107112, Start Num: 20

Candidate Starts for Rikishi_222:

(17, 106831), (Start: 20 @106885 has 78 MA's), (27, 106960), (32, 106993), (41, 107080),

Gene: Riptide_208 Start: 104950, Stop: 105174, Start Num: 20

Candidate Starts for Riptide_208:

(4, 104737), (7, 104755), (8, 104791), (17, 104896), (Start: 20 @104950 has 78 MA's), (21, 104962), (24, 105019), (41, 105145),

Gene: SaltySpittoon_221 Start: 106146, Stop: 106373, Start Num: 20

Candidate Starts for SaltySpittoon_221:

(17, 106092), (Start: 20 @106146 has 78 MA's), (27, 106221), (32, 106254), (41, 106341),

Gene: Samisti12_210 Start: 107483, Stop: 107707, Start Num: 20

Candidate Starts for Samisti12_210:

(16, 107378), (17, 107429), (Start: 20 @107483 has 78 MA's), (25, 107552), (33, 107588), (35, 107621), (41, 107672), (42, 107690),

Gene: Scheme_209 Start: 107078, Stop: 107302, Start Num: 20

Candidate Starts for Scheme_209:

(16, 106973), (17, 107024), (Start: 20 @107078 has 78 MA's), (25, 107147), (33, 107183), (35, 107216), (41, 107267), (42, 107285),

Gene: Shuckle_204 Start: 105980, Stop: 106204, Start Num: 20

Candidate Starts for Shuckle_204:

(17, 105926), (Start: 20 @105980 has 78 MA's), (25, 106049), (35, 106118), (41, 106169), (42, 106187),

Gene: Sollertia_220 Start: 106929, Stop: 107153, Start Num: 20

Candidate Starts for Sollertia_220:

(Start: 20 @106929 has 78 MA's), (24, 106998), (27, 107004), (29, 107019), (41, 107124),

Gene: Spelly_226 Start: 106075, Stop: 106302, Start Num: 20

Candidate Starts for Spelly_226:

(17, 106021), (Start: 20 @106075 has 78 MA's), (27, 106150), (32, 106183), (41, 106270),

Gene: Spilled_228 Start: 107279, Stop: 107506, Start Num: 20

Candidate Starts for Spilled_228:

(17, 107225), (Start: 20 @107279 has 78 MA's), (27, 107354), (32, 107387), (41, 107474),

Gene: Squillium_209 Start: 105300, Stop: 105524, Start Num: 20

Candidate Starts for Squillium_209:

(17, 105246), (Start: 20 @105300 has 78 MA's), (25, 105369), (29, 105384), (35, 105438), (41, 105489), (42, 105507),

Gene: Stanimal_219 Start: 107301, Stop: 107525, Start Num: 20

Candidate Starts for Stanimal_219:

(Start: 20 @107301 has 78 MA's), (24, 107370), (27, 107376), (29, 107391), (41, 107496),

Gene: StarPlatinum_228 Start: 109024, Stop: 109251, Start Num: 20

Candidate Starts for StarPlatinum_228:

(17, 108970), (Start: 20 @109024 has 78 MA's), (32, 109132), (41, 109219),

Gene: Starbow_218 Start: 106119, Stop: 106346, Start Num: 20

Candidate Starts for Starbow_218:

(17, 106065), (Start: 20 @106119 has 78 MA's), (27, 106194), (32, 106227), (41, 106314),

Gene: Sushi23_206 Start: 106493, Stop: 106717, Start Num: 20

Candidate Starts for Sushi23_206:

(16, 106388), (17, 106439), (Start: 20 @106493 has 78 MA's), (25, 106562), (33, 106598), (35, 106631), (41, 106682), (42, 106700),

Gene: Targaryen_206 Start: 106988, Stop: 107212, Start Num: 20

Candidate Starts for Targaryen_206:

(17, 106934), (Start: 20 @106988 has 78 MA's), (25, 107057), (31, 107084), (35, 107126), (41, 107177), (42, 107195),

Gene: Teutsch_206 Start: 106590, Stop: 106814, Start Num: 20

Candidate Starts for Teutsch_206:

(16, 106485), (17, 106536), (Start: 20 @106590 has 78 MA's), (25, 106659), (33, 106695), (35, 106728), (41, 106779), (42, 106797),

Gene: TomSawyer_225 Start: 108590, Stop: 108817, Start Num: 20

Candidate Starts for TomSawyer_225:

(17, 108536), (Start: 20 @108590 has 78 MA's), (27, 108665), (41, 108785),

Gene: Tribute_204 Start: 106430, Stop: 106654, Start Num: 20

Candidate Starts for Tribute_204:

(16, 106325), (17, 106376), (Start: 20 @106430 has 78 MA's), (25, 106499), (33, 106535), (35, 106568), (41, 106619), (42, 106637),

Gene: Warpy_210 Start: 105897, Stop: 106121, Start Num: 20

Candidate Starts for Warpy_210:

(17, 105843), (Start: 20 @105897 has 78 MA's), (25, 105966), (31, 105993), (35, 106035), (41, 106086), (42, 106104),

Gene: WashU_210 Start: 106381, Stop: 106605, Start Num: 20

Candidate Starts for WashU_210:

(16, 106276), (17, 106327), (Start: 20 @106381 has 78 MA's), (25, 106450), (33, 106486), (35, 106519), (41, 106570), (42, 106588),

Gene: Watermoore_205 Start: 106835, Stop: 107059, Start Num: 20

Candidate Starts for Watermoore_205:

(16, 106730), (17, 106781), (Start: 20 @106835 has 78 MA's), (25, 106904), (33, 106940), (35, 106973), (41, 107024), (42, 107042),

Gene: WhereRU_206 Start: 105027, Stop: 105251, Start Num: 20

Candidate Starts for WhereRU_206:

(17, 104973), (Start: 20 @105027 has 78 MA's), (25, 105096), (29, 105111), (35, 105165), (41, 105216), (42, 105234),

Gene: Wipeout_212 Start: 107542, Stop: 107769, Start Num: 20

Candidate Starts for Wipeout_212:

(17, 107488), (Start: 20 @107542 has 78 MA's), (27, 107617), (41, 107737),

Gene: Wofford_222 Start: 110235, Stop: 110462, Start Num: 20

Candidate Starts for Wofford_222:

(Start: 20 @110235 has 78 MA's), (28, 110316), (29, 110325), (38, 110400), (41, 110430),

Gene: Yaboi_224 Start: 106864, Stop: 107088, Start Num: 20

Candidate Starts for Yaboi_224:

(Start: 20 @106864 has 78 MA's), (24, 106933), (27, 106939), (29, 106954), (41, 107059),

