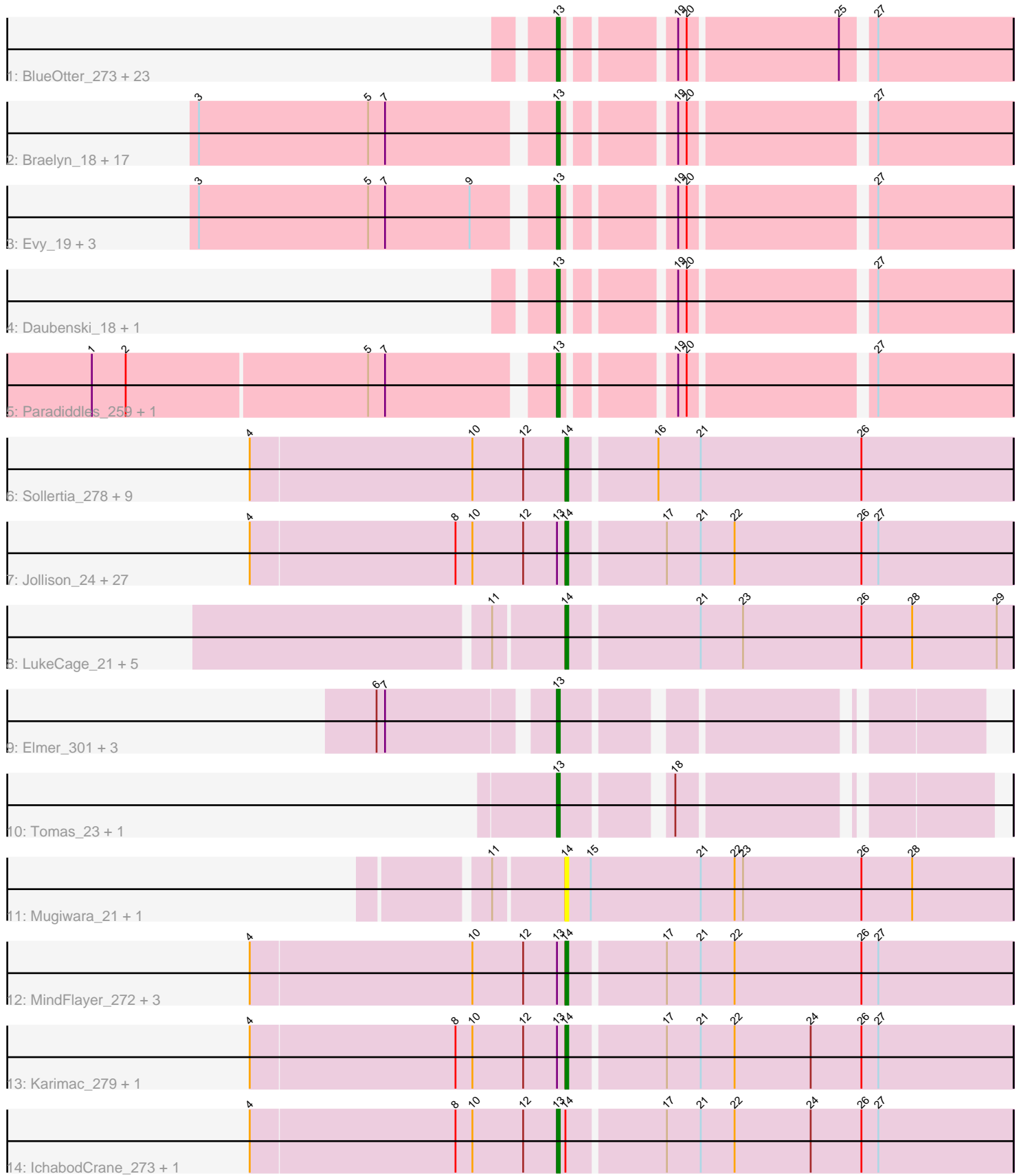


Pham 85344



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 85344 Report

This analysis was run 04/28/24 on database version 559.

Pham number 85344 has 110 members, 26 are drafts.

Phages represented in each track:

- Track 1 : BlueOtter_273, Leo04_270, Watermoore_266, Cross_267, Peebs_266, Pepperwood_20, Cursive_17, Larnav_282, Larnav_23, Pepperwood_269, Sushi23_20, Cursive_271, Peebs_19, HangryHippo_21, Lululemon_20, BlueOtter_21, Leo04_19, HangryHippo_273, Sushi23_270, PacManQ_271, Watermoore_19, Lululemon_270, PacManQ_20, Cross_19
- Track 2 : Braelyn_18, Bartholomune_18, Bartholomune_268, Navo_269, PinkiePie_18, Squillium_270, Braelyn_263, Liandry_267, WhereRU_19, Liandry_18, Navo_19, NootNoot_263, WhereRU_275, Squillium_18, NootNoot_18, Persimmon_268, PinkiePie_268, Persimmon_17
- Track 3 : Evy_19, Evy_257, Targaryen_268, Targaryen_17
- Track 4 : Daubenski_18, Daubenski_262
- Track 5 : Paradiddles_259, Paradiddles_18
- Track 6 : Sollertia_278, Yaboi_282, Yaboi_21, Stanimal_277, BoomerJR_22, Sollertia_22, Genie2_22, Stanimal_22, BoomerJR_277, Genie2_277
- Track 7 : Jollison_24, JimJam_21, PumpkinSpice_21, Wipeout_274, Battuta_278, Spelly_287, Wipeout_20, Quarant19_282, PumpkinSpice_285, Quarant19_21, Birchlyn_278, SaltySpittoon_21, TomSawyer_286, SaltySpittoon_281, Starbow_21, Jollison_288, Bordeaux_21, Battuta_21, Starbow_278, Spilled_20, Gibbi_294, Birchlyn_18, Bordeaux_278, JimJam_289, Spilled_288, TomSawyer_21, Gibbi_23, Spelly_21
- Track 8 : LukeCage_21, KentuckyRacer_23, CeilingFan_297, KentuckyRacer_297, CeilingFan_23, LukeCage_284
- Track 9 : Elmer_301, Wofford_278, Wofford_20, Elmer_25
- Track 10 : Tomas_23, Tomas_279
- Track 11 : Mugiware_21, Mugiware_293
- Track 12 : MindFlayer_272, MindFlayer_20, Amabiko_22, Amabiko_286
- Track 13 : Karimac_279, Karimac_21
- Track 14 : IchabodCrane_273, IchabodCrane_20

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

The start number called the most often in the published annotations is 14, it was called in 42 of the 84 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amabiko_22, Amabiko_286, Battuta_21, Battuta_278, Birchlyn_18, Birchlyn_278, BoomerJR_22, BoomerJR_277, Bordeaux_21, Bordeaux_278, CeilingFan_23, CeilingFan_297, Genie2_22, Genie2_277, Gibbi_23, Gibbi_294, JimJam_21, JimJam_289, Jollison_24, Jollison_288, Karimac_21, Karimac_279, KentuckyRacer_23, KentuckyRacer_297, LukeCage_21, LukeCage_284, MindFlayer_20, MindFlayer_272, Mugiwara_21, Mugiwara_293, PumpkinSpice_21, PumpkinSpice_285, Quarant19_21, Quarant19_282, SaltySpittoon_21, SaltySpittoon_281, Sollertia_22, Sollertia_278, Spelly_21, Spelly_287, Spilled_20, Spilled_288, Stanimal_22, Stanimal_277, Starbow_21, Starbow_278, TomSawyer_21, TomSawyer_286, Wipeout_20, Wipeout_274, Yaboi_21, Yaboi_282,

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

- IchabodCrane_20, IchabodCrane_273,

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

- Bartholomune_18, Bartholomune_268, BlueOtter_21, BlueOtter_273, Braelyn_18, Braelyn_263, Cross_19, Cross_267, Cursive_17, Cursive_271, Daubenski_18, Daubenski_262, Elmer_25, Elmer_301, Evy_19, Evy_257, HangryHippo_21, HangryHippo_273, Larnav_23, Larnav_282, Leo04_19, Leo04_270, Liandry_18, Liandry_267, Lululemon_20, Lululemon_270, Navo_19, Navo_269, NootNoot_18, NootNoot_263, PacManQ_20, PacManQ_271, Paradiddles_18, Paradiddles_259, Peebs_19, Peebs_266, Pepperwood_20, Pepperwood_269, Persimmon_17, Persimmon_268, PinkiePie_18, PinkiePie_268, Squillium_18, Squillium_270, Sushi23_20, Sushi23_270, Targaryen_17, Targaryen_268, Tomas_23, Tomas_279, Watermoore_19, Watermoore_266, WhereRU_19, WhereRU_275, Wofford_20, Wofford_278,

Summary by start number:

Start 13:

- Found in 92 of 110 (83.6%) of genes in pham
- Manual Annotations of this start: 42 of 84
- Called 63.0% of time when present
- Phage (with cluster) where this start called: Bartholomune_18 (BE1), Bartholomune_268 (BE1), BlueOtter_21 (BE1), BlueOtter_273 (BE1), Braelyn_18 (BE1), Braelyn_263 (BE1), Cross_19 (BE1), Cross_267 (BE1), Cursive_17 (BE1), Cursive_271 (BE1), Daubenski_18 (BE1), Daubenski_262 (BE1), Elmer_25 (BE2), Elmer_301 (BE2), Evy_19 (BE1), Evy_257 (BE1), HangryHippo_21 (BE1), HangryHippo_273 (BE1), IchabodCrane_20 (BE2), IchabodCrane_273 (BE2), Larnav_23 (BE1), Larnav_282 (BE1), Leo04_19 (BE1), Leo04_270 (BE1), Liandry_18 (BE1), Liandry_267 (BE1), Lululemon_20 (BE1), Lululemon_270 (BE1), Navo_19 (BE1), Navo_269 (BE1), NootNoot_18 (BE1), NootNoot_263 (BE1), PacManQ_20 (BE1), PacManQ_271 (BE1), Paradiddles_18 (BE1), Paradiddles_259 (BE1), Peebs_19 (BE1), Peebs_266 (BE1), Pepperwood_20 (BE1), Pepperwood_269 (BE1), Persimmon_17 (BE1), Persimmon_268 (BE1), PinkiePie_18 (BE1), PinkiePie_268 (BE1), Squillium_18 (BE1), Squillium_270 (BE1), Sushi23_20 (BE1), Sushi23_270 (BE1), Targaryen_17 (BE1), Targaryen_268 (BE1), Tomas_23 (BE2), Tomas_279 (BE2), Watermoore_19 (BE1), Watermoore_266 (BE1), WhereRU_19 (BE1), WhereRU_275 (BE1), Wofford_20 (BE2), Wofford_278 (BE2),

Start 14:

- Found in 54 of 110 (49.1%) of genes in pham

- Manual Annotations of this start: 42 of 84
- Called 96.3% of time when present
- Phage (with cluster) where this start called: Amabiko_22 (BE2), Amabiko_286 (BE2), Battuta_21 (BE2), Battuta_278 (BE2), Birchlyn_18 (BE2), Birchlyn_278 (BE2), BoomerJR_22 (BE2), BoomerJR_277 (BE2), Bordeaux_21 (BE2), Bordeaux_278 (BE2), CeilingFan_23 (BE2), CeilingFan_297 (BE2), Genie2_22 (BE2), Genie2_277 (BE2), Gibbi_23 (BE2), Gibbi_294 (BE2), JimJam_21 (BE2), JimJam_289 (BE2), Jollison_24 (BE2), Jollison_288 (BE2), Karimac_21 (BE2), Karimac_279 (BE2), KentuckyRacer_23 (BE2), KentuckyRacer_297 (BE2), LukeCage_21 (BE2), LukeCage_284 (BE2), MindFlayer_20 (BE2), MindFlayer_272 (BE2), Mugiwarara_21 (BE2), Mugiwarara_293 (BE2), PumpkinSpice_21 (BE2), PumpkinSpice_285 (BE2), Quarant19_21 (BE2), Quarant19_282 (BE2), SaltySpitoon_21 (BE2), SaltySpitoon_281 (BE2), Sollertia_22 (BE2), Sollertia_278 (BE2), Spelly_21 (BE2), Spelly_287 (BE2), Spilled_20 (BE2), Spilled_288 (BE2), Stanimal_22 (BE2), Stanimal_277 (BE2), Starbow_21 (BE2), Starbow_278 (BE2), TomSawyer_21 (BE2), TomSawyer_286 (BE2), Wipeout_20 (BE2), Wipeout_274 (BE2), Yaboi_21 (BE2), Yaboi_282 (BE2),

Summary by clusters:

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

Info for manual annotations of cluster BE1:

- Start number 13 was manually annotated 36 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 13 was manually annotated 6 times for cluster BE2.
- Start number 14 was manually annotated 42 times for cluster BE2.

Gene Information:

Gene: Amabiko_22 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for Amabiko_22:

(4, 10374), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: Amabiko_286 Start: 129089, Stop: 128934, Start Num: 14

Candidate Starts for Amabiko_286:

(4, 129200), (10, 129122), (12, 129104), (Start: 13 @129092 has 42 MA's), (Start: 14 @129089 has 42 MA's), (17, 129056), (21, 129044), (22, 129032), (26, 128987), (27, 128981),

Gene: Bartholomune_18 Start: 8759, Stop: 8616, Start Num: 13

Candidate Starts for Bartholomune_18:

(3, 8879), (5, 8819), (7, 8813), (Start: 13 @8759 has 42 MA's), (19, 8726), (20, 8723), (27, 8663),

Gene: Bartholomune_268 Start: 129858, Stop: 129715, Start Num: 13

Candidate Starts for Bartholomune_268:

(3, 129978), (5, 129918), (7, 129912), (Start: 13 @129858 has 42 MA's), (19, 129825), (20, 129822), (27, 129762),

Gene: Battuta_278 Start: 128418, Stop: 128263, Start Num: 14

Candidate Starts for Battuta_278:

(4, 128529), (8, 128457), (10, 128451), (12, 128433), (Start: 13 @128421 has 42 MA's), (Start: 14 @128418 has 42 MA's), (17, 128385), (21, 128373), (22, 128361), (26, 128316), (27, 128310),

Gene: Battuta_21 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for Battuta_21:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: Birchlyn_278 Start: 124207, Stop: 124052, Start Num: 14

Candidate Starts for Birchlyn_278:

(4, 124318), (8, 124246), (10, 124240), (12, 124222), (Start: 13 @124210 has 42 MA's), (Start: 14 @124207 has 42 MA's), (17, 124174), (21, 124162), (22, 124150), (26, 124105), (27, 124099),

Gene: Birchlyn_18 Start: 8116, Stop: 7961, Start Num: 14

Candidate Starts for Birchlyn_18:

(4, 8227), (8, 8155), (10, 8149), (12, 8131), (Start: 13 @8119 has 42 MA's), (Start: 14 @8116 has 42 MA's), (17, 8083), (21, 8071), (22, 8059), (26, 8014), (27, 8008),

Gene: BlueOtter_273 Start: 130132, Stop: 129989, Start Num: 13

Candidate Starts for BlueOtter_273:

(Start: 13 @130132 has 42 MA's), (19, 130099), (20, 130096), (25, 130045), (27, 130036),

Gene: BlueOtter_21 Start: 9045, Stop: 8902, Start Num: 13

Candidate Starts for BlueOtter_21:

(Start: 13 @9045 has 42 MA's), (19, 9012), (20, 9009), (25, 8958), (27, 8949),

Gene: BoomerJR_22 Start: 10162, Stop: 10007, Start Num: 14

Candidate Starts for BoomerJR_22:

(4, 10273), (10, 10195), (12, 10177), (Start: 14 @10162 has 42 MA's), (16, 10132), (21, 10117), (26, 10060),

Gene: BoomerJR_277 Start: 128950, Stop: 128795, Start Num: 14

Candidate Starts for BoomerJR_277:

(4, 129061), (10, 128983), (12, 128965), (Start: 14 @128950 has 42 MA's), (16, 128920), (21, 128905), (26, 128848),

Gene: Bordeaux_21 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for Bordeaux_21:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: Bordeaux_278 Start: 129001, Stop: 128846, Start Num: 14

Candidate Starts for Bordeaux_278:

(4, 129112), (8, 129040), (10, 129034), (12, 129016), (Start: 13 @129004 has 42 MA's), (Start: 14 @129001 has 42 MA's), (17, 128968), (21, 128956), (22, 128944), (26, 128899), (27, 128893),

Gene: Braelyn_18 Start: 8802, Stop: 8659, Start Num: 13

Candidate Starts for Braelyn_18:

(3, 8922), (5, 8862), (7, 8856), (Start: 13 @8802 has 42 MA's), (19, 8769), (20, 8766), (27, 8706),

Gene: Braelyn_263 Start: 129212, Stop: 129069, Start Num: 13

Candidate Starts for Braelyn_263:

(3, 129332), (5, 129272), (7, 129266), (Start: 13 @129212 has 42 MA's), (19, 129179), (20, 129176), (27, 129116),

Gene: CeilingFan_297 Start: 130711, Stop: 130556, Start Num: 14

Candidate Starts for CeilingFan_297:

(11, 130735), (Start: 14 @130711 has 42 MA's), (21, 130666), (23, 130651), (26, 130609), (28, 130591), (29, 130561),

Gene: CeilingFan_23 Start: 10104, Stop: 9949, Start Num: 14

Candidate Starts for CeilingFan_23:

(11, 10128), (Start: 14 @10104 has 42 MA's), (21, 10059), (23, 10044), (26, 10002), (28, 9984), (29, 9954),

Gene: Cross_267 Start: 130778, Stop: 130635, Start Num: 13

Candidate Starts for Cross_267:

(Start: 13 @130778 has 42 MA's), (19, 130745), (20, 130742), (25, 130691), (27, 130682),

Gene: Cross_19 Start: 9046, Stop: 8903, Start Num: 13

Candidate Starts for Cross_19:

(Start: 13 @9046 has 42 MA's), (19, 9013), (20, 9010), (25, 8959), (27, 8950),

Gene: Cursive_17 Start: 7863, Stop: 7720, Start Num: 13

Candidate Starts for Cursive_17:

(Start: 13 @7863 has 42 MA's), (19, 7830), (20, 7827), (25, 7776), (27, 7767),

Gene: Cursive_271 Start: 129872, Stop: 129729, Start Num: 13

Candidate Starts for Cursive_271:

(Start: 13 @129872 has 42 MA's), (19, 129839), (20, 129836), (25, 129785), (27, 129776),

Gene: Daubenski_18 Start: 8696, Stop: 8553, Start Num: 13

Candidate Starts for Daubenski_18:

(Start: 13 @8696 has 42 MA's), (19, 8663), (20, 8660), (27, 8600),

Gene: Daubenski_262 Start: 131072, Stop: 130929, Start Num: 13

Candidate Starts for Daubenski_262:

(Start: 13 @131072 has 42 MA's), (19, 131039), (20, 131036), (27, 130976),

Gene: Elmer_301 Start: 131559, Stop: 131431, Start Num: 13

Candidate Starts for Elmer_301:

(6, 131616), (7, 131613), (Start: 13 @131559 has 42 MA's),

Gene: Elmer_25 Start: 9191, Stop: 9063, Start Num: 13

Candidate Starts for Elmer_25:

(6, 9248), (7, 9245), (Start: 13 @9191 has 42 MA's),

Gene: Evy_19 Start: 9226, Stop: 9083, Start Num: 13

Candidate Starts for Evy_19:

(3, 9346), (5, 9286), (7, 9280), (9, 9250), (Start: 13 @9226 has 42 MA's), (19, 9193), (20, 9190), (27, 9130),

Gene: Evy_257 Start: 130955, Stop: 130812, Start Num: 13

Candidate Starts for Evy_257:

(3, 131075), (5, 131015), (7, 131009), (9, 130979), (Start: 13 @130955 has 42 MA's), (19, 130922), (20, 130919), (27, 130859),

Gene: Genie2_22 Start: 10162, Stop: 10007, Start Num: 14

Candidate Starts for Genie2_22:

(4, 10273), (10, 10195), (12, 10177), (Start: 14 @10162 has 42 MA's), (16, 10132), (21, 10117), (26, 10060),

Gene: Genie2_277 Start: 129063, Stop: 128908, Start Num: 14

Candidate Starts for Genie2_277:

(4, 129174), (10, 129096), (12, 129078), (Start: 14 @129063 has 42 MA's), (16, 129033), (21, 129018), (26, 128961),

Gene: Gibbi_294 Start: 129974, Stop: 129819, Start Num: 14

Candidate Starts for Gibbi_294:

(4, 130085), (8, 130013), (10, 130007), (12, 129989), (Start: 13 @129977 has 42 MA's), (Start: 14 @129974 has 42 MA's), (17, 129941), (21, 129929), (22, 129917), (26, 129872), (27, 129866),

Gene: Gibbi_23 Start: 9874, Stop: 9719, Start Num: 14

Candidate Starts for Gibbi_23:

(4, 9985), (8, 9913), (10, 9907), (12, 9889), (Start: 13 @9877 has 42 MA's), (Start: 14 @9874 has 42 MA's), (17, 9841), (21, 9829), (22, 9817), (26, 9772), (27, 9766),

Gene: HangryHippo_21 Start: 9045, Stop: 8902, Start Num: 13

Candidate Starts for HangryHippo_21:

(Start: 13 @9045 has 42 MA's), (19, 9012), (20, 9009), (25, 8958), (27, 8949),

Gene: HangryHippo_273 Start: 130132, Stop: 129989, Start Num: 13

Candidate Starts for HangryHippo_273:

(Start: 13 @130132 has 42 MA's), (19, 130099), (20, 130096), (25, 130045), (27, 130036),

Gene: IchabodCrane_273 Start: 128417, Stop: 128259, Start Num: 13

Candidate Starts for IchabodCrane_273:

(4, 128525), (8, 128453), (10, 128447), (12, 128429), (Start: 13 @128417 has 42 MA's), (Start: 14 @128414 has 42 MA's), (17, 128381), (21, 128369), (22, 128357), (24, 128330), (26, 128312), (27, 128306),

Gene: IchabodCrane_20 Start: 9874, Stop: 9716, Start Num: 13

Candidate Starts for IchabodCrane_20:

(4, 9982), (8, 9910), (10, 9904), (12, 9886), (Start: 13 @9874 has 42 MA's), (Start: 14 @9871 has 42 MA's), (17, 9838), (21, 9826), (22, 9814), (24, 9787), (26, 9769), (27, 9763),

Gene: JimJam_21 Start: 10262, Stop: 10107, Start Num: 14

Candidate Starts for JimJam_21:

(4, 10373), (8, 10301), (10, 10295), (12, 10277), (Start: 13 @10265 has 42 MA's), (Start: 14 @10262 has 42 MA's), (17, 10229), (21, 10217), (22, 10205), (26, 10160), (27, 10154),

Gene: JimJam_289 Start: 131798, Stop: 131643, Start Num: 14

Candidate Starts for JimJam_289:

(4, 131909), (8, 131837), (10, 131831), (12, 131813), (Start: 13 @131801 has 42 MA's), (Start: 14 @131798 has 42 MA's), (17, 131765), (21, 131753), (22, 131741), (26, 131696), (27, 131690),

Gene: Jollison_24 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for Jollison_24:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: Jollison_288 Start: 128938, Stop: 128783, Start Num: 14

Candidate Starts for Jollison_288:

(4, 129049), (8, 128977), (10, 128971), (12, 128953), (Start: 13 @128941 has 42 MA's), (Start: 14 @128938 has 42 MA's), (17, 128905), (21, 128893), (22, 128881), (26, 128836), (27, 128830),

Gene: Karimac_279 Start: 129584, Stop: 129429, Start Num: 14

Candidate Starts for Karimac_279:

(4, 129695), (8, 129623), (10, 129617), (12, 129599), (Start: 13 @129587 has 42 MA's), (Start: 14 @129584 has 42 MA's), (17, 129551), (21, 129539), (22, 129527), (24, 129500), (26, 129482), (27, 129476),

Gene: Karimac_21 Start: 10265, Stop: 10110, Start Num: 14

Candidate Starts for Karimac_21:

(4, 10376), (8, 10304), (10, 10298), (12, 10280), (Start: 13 @10268 has 42 MA's), (Start: 14 @10265 has 42 MA's), (17, 10232), (21, 10220), (22, 10208), (24, 10181), (26, 10163), (27, 10157),

Gene: KentuckyRacer_23 Start: 10105, Stop: 9950, Start Num: 14

Candidate Starts for KentuckyRacer_23:

(11, 10129), (Start: 14 @10105 has 42 MA's), (21, 10060), (23, 10045), (26, 10003), (28, 9985), (29, 9955),

Gene: KentuckyRacer_297 Start: 131556, Stop: 131401, Start Num: 14

Candidate Starts for KentuckyRacer_297:

(11, 131580), (Start: 14 @131556 has 42 MA's), (21, 131511), (23, 131496), (26, 131454), (28, 131436), (29, 131406),

Gene: Larnav_282 Start: 131051, Stop: 130908, Start Num: 13

Candidate Starts for Larnav_282:

(Start: 13 @131051 has 42 MA's), (19, 131018), (20, 131015), (25, 130964), (27, 130955),

Gene: Larnav_23 Start: 9046, Stop: 8903, Start Num: 13

Candidate Starts for Larnav_23:

(Start: 13 @9046 has 42 MA's), (19, 9013), (20, 9010), (25, 8959), (27, 8950),

Gene: Leo04_270 Start: 131162, Stop: 131019, Start Num: 13

Candidate Starts for Leo04_270:

(Start: 13 @131162 has 42 MA's), (19, 131129), (20, 131126), (25, 131075), (27, 131066),

Gene: Leo04_19 Start: 9044, Stop: 8901, Start Num: 13

Candidate Starts for Leo04_19:

(Start: 13 @9044 has 42 MA's), (19, 9011), (20, 9008), (25, 8957), (27, 8948),

Gene: Liandry_267 Start: 130279, Stop: 130136, Start Num: 13

Candidate Starts for Liandry_267:

(3, 130399), (5, 130339), (7, 130333), (Start: 13 @130279 has 42 MA's), (19, 130246), (20, 130243), (27, 130183),

Gene: Liandry_18 Start: 8758, Stop: 8615, Start Num: 13

Candidate Starts for Liandry_18:

(3, 8878), (5, 8818), (7, 8812), (Start: 13 @8758 has 42 MA's), (19, 8725), (20, 8722), (27, 8662),

Gene: LukeCage_21 Start: 10057, Stop: 9902, Start Num: 14

Candidate Starts for LukeCage_21:

(11, 10081), (Start: 14 @10057 has 42 MA's), (21, 10012), (23, 9997), (26, 9955), (28, 9937), (29, 9907),

Gene: LukeCage_284 Start: 130961, Stop: 130806, Start Num: 14

Candidate Starts for LukeCage_284:

(11, 130985), (Start: 14 @130961 has 42 MA's), (21, 130916), (23, 130901), (26, 130859), (28, 130841), (29, 130811),

Gene: Lululemon_20 Start: 8425, Stop: 8282, Start Num: 13

Candidate Starts for Lululemon_20:

(Start: 13 @8425 has 42 MA's), (19, 8392), (20, 8389), (25, 8338), (27, 8329),

Gene: Lululemon_270 Start: 129317, Stop: 129174, Start Num: 13

Candidate Starts for Lululemon_270:

(Start: 13 @129317 has 42 MA's), (19, 129284), (20, 129281), (25, 129230), (27, 129221),

Gene: MindFlayer_272 Start: 127933, Stop: 127778, Start Num: 14

Candidate Starts for MindFlayer_272:

(4, 128044), (10, 127966), (12, 127948), (Start: 13 @127936 has 42 MA's), (Start: 14 @127933 has 42 MA's), (17, 127900), (21, 127888), (22, 127876), (26, 127831), (27, 127825),

Gene: MindFlayer_20 Start: 9873, Stop: 9718, Start Num: 14

Candidate Starts for MindFlayer_20:

(4, 9984), (10, 9906), (12, 9888), (Start: 13 @9876 has 42 MA's), (Start: 14 @9873 has 42 MA's), (17, 9840), (21, 9828), (22, 9816), (26, 9771), (27, 9765),

Gene: Mugiwara_21 Start: 9706, Stop: 9548, Start Num: 14

Candidate Starts for Mugiwara_21:

(11, 9730), (Start: 14 @9706 has 42 MA's), (15, 9697), (21, 9658), (22, 9646), (23, 9643), (26, 9601), (28, 9583),

Gene: Mugiwara_293 Start: 131091, Stop: 130933, Start Num: 14

Candidate Starts for Mugiwara_293:

(11, 131115), (Start: 14 @131091 has 42 MA's), (15, 131082), (21, 131043), (22, 131031), (23, 131028), (26, 130986), (28, 130968),

Gene: Navo_269 Start: 128182, Stop: 128039, Start Num: 13

Candidate Starts for Navo_269:

(3, 128302), (5, 128242), (7, 128236), (Start: 13 @128182 has 42 MA's), (19, 128149), (20, 128146), (27, 128086),

Gene: Navo_19 Start: 8557, Stop: 8414, Start Num: 13

Candidate Starts for Navo_19:

(3, 8677), (5, 8617), (7, 8611), (Start: 13 @8557 has 42 MA's), (19, 8524), (20, 8521), (27, 8461),

Gene: NootNoot_263 Start: 129068, Stop: 128925, Start Num: 13

Candidate Starts for NootNoot_263:

(3, 129188), (5, 129128), (7, 129122), (Start: 13 @129068 has 42 MA's), (19, 129035), (20, 129032), (27, 128972),

Gene: NootNoot_18 Start: 8769, Stop: 8626, Start Num: 13

Candidate Starts for NootNoot_18:

(3, 8889), (5, 8829), (7, 8823), (Start: 13 @8769 has 42 MA's), (19, 8736), (20, 8733), (27, 8673),

Gene: PacManQ_271 Start: 129317, Stop: 129174, Start Num: 13

Candidate Starts for PacManQ_271:

(Start: 13 @129317 has 42 MA's), (19, 129284), (20, 129281), (25, 129230), (27, 129221),

Gene: PacManQ_20 Start: 8425, Stop: 8282, Start Num: 13

Candidate Starts for PacManQ_20:

(Start: 13 @8425 has 42 MA's), (19, 8392), (20, 8389), (25, 8338), (27, 8329),

Gene: Paradiddles_259 Start: 131467, Stop: 131324, Start Num: 13

Candidate Starts for Paradiddles_259:

(1, 131623), (2, 131611), (5, 131527), (7, 131521), (Start: 13 @131467 has 42 MA's), (19, 131434), (20, 131431), (27, 131371),

Gene: Paradiddles_18 Start: 8759, Stop: 8616, Start Num: 13

Candidate Starts for Paradiddles_18:

(1, 8915), (2, 8903), (5, 8819), (7, 8813), (Start: 13 @8759 has 42 MA's), (19, 8726), (20, 8723), (27, 8663),

Gene: Peebs_266 Start: 131019, Stop: 130876, Start Num: 13

Candidate Starts for Peebs_266:

(Start: 13 @131019 has 42 MA's), (19, 130986), (20, 130983), (25, 130932), (27, 130923),

Gene: Peebs_19 Start: 9044, Stop: 8901, Start Num: 13

Candidate Starts for Peebs_19:

(Start: 13 @9044 has 42 MA's), (19, 9011), (20, 9008), (25, 8957), (27, 8948),

Gene: Pepperwood_20 Start: 9199, Stop: 9056, Start Num: 13

Candidate Starts for Pepperwood_20:

(Start: 13 @9199 has 42 MA's), (19, 9166), (20, 9163), (25, 9112), (27, 9103),

Gene: Pepperwood_269 Start: 130984, Stop: 130841, Start Num: 13

Candidate Starts for Pepperwood_269:

(Start: 13 @130984 has 42 MA's), (19, 130951), (20, 130948), (25, 130897), (27, 130888),

Gene: Persimmon_268 Start: 129399, Stop: 129256, Start Num: 13

Candidate Starts for Persimmon_268:

(3, 129519), (5, 129459), (7, 129453), (Start: 13 @129399 has 42 MA's), (19, 129366), (20, 129363), (27, 129303),

Gene: Persimmon_17 Start: 8588, Stop: 8445, Start Num: 13

Candidate Starts for Persimmon_17:

(3, 8708), (5, 8648), (7, 8642), (Start: 13 @8588 has 42 MA's), (19, 8555), (20, 8552), (27, 8492),

Gene: PinkiePie_18 Start: 8759, Stop: 8616, Start Num: 13

Candidate Starts for PinkiePie_18:

(3, 8879), (5, 8819), (7, 8813), (Start: 13 @8759 has 42 MA's), (19, 8726), (20, 8723), (27, 8663),

Gene: PinkiePie_268 Start: 130280, Stop: 130137, Start Num: 13

Candidate Starts for PinkiePie_268:

(3, 130400), (5, 130340), (7, 130334), (Start: 13 @130280 has 42 MA's), (19, 130247), (20, 130244), (27, 130184),

Gene: PumpkinSpice_21 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for PumpkinSpice_21:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: PumpkinSpice_285 Start: 130155, Stop: 130000, Start Num: 14

Candidate Starts for PumpkinSpice_285:

(4, 130266), (8, 130194), (10, 130188), (12, 130170), (Start: 13 @130158 has 42 MA's), (Start: 14 @130155 has 42 MA's), (17, 130122), (21, 130110), (22, 130098), (26, 130053), (27, 130047),

Gene: Quaran19_282 Start: 129445, Stop: 129290, Start Num: 14

Candidate Starts for Quaran19_282:

(4, 129556), (8, 129484), (10, 129478), (12, 129460), (Start: 13 @129448 has 42 MA's), (Start: 14 @129445 has 42 MA's), (17, 129412), (21, 129400), (22, 129388), (26, 129343), (27, 129337),

Gene: Quaran19_21 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for Quaran19_21:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: SaltySpittoon_21 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for SaltySpittoon_21:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: SaltySpittoon_281 Start: 128527, Stop: 128372, Start Num: 14

Candidate Starts for SaltySpittoon_281:

(4, 128638), (8, 128566), (10, 128560), (12, 128542), (Start: 13 @128530 has 42 MA's), (Start: 14 @128527 has 42 MA's), (17, 128494), (21, 128482), (22, 128470), (26, 128425), (27, 128419),

Gene: Sollertia_278 Start: 129052, Stop: 128897, Start Num: 14

Candidate Starts for Sollertia_278:

(4, 129163), (10, 129085), (12, 129067), (Start: 14 @129052 has 42 MA's), (16, 129022), (21, 129007), (26, 128950),

Gene: Sollertia_22 Start: 10162, Stop: 10007, Start Num: 14

Candidate Starts for Sollertia_22:

(4, 10273), (10, 10195), (12, 10177), (Start: 14 @10162 has 42 MA's), (16, 10132), (21, 10117), (26, 10060),

Gene: Spelly_287 Start: 129067, Stop: 128912, Start Num: 14

Candidate Starts for Spelly_287:

(4, 129178), (8, 129106), (10, 129100), (12, 129082), (Start: 13 @129070 has 42 MA's), (Start: 14 @129067 has 42 MA's), (17, 129034), (21, 129022), (22, 129010), (26, 128965), (27, 128959),

Gene: Spelly_21 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for Spelly_21:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: Spilled_20 Start: 9873, Stop: 9718, Start Num: 14

Candidate Starts for Spilled_20:

(4, 9984), (8, 9912), (10, 9906), (12, 9888), (Start: 13 @9876 has 42 MA's), (Start: 14 @9873 has 42 MA's), (17, 9840), (21, 9828), (22, 9816), (26, 9771), (27, 9765),

Gene: Spilled_288 Start: 130342, Stop: 130187, Start Num: 14

Candidate Starts for Spilled_288:

(4, 130453), (8, 130381), (10, 130375), (12, 130357), (Start: 13 @130345 has 42 MA's), (Start: 14 @130342 has 42 MA's), (17, 130309), (21, 130297), (22, 130285), (26, 130240), (27, 130234),

Gene: Squillium_270 Start: 130282, Stop: 130139, Start Num: 13

Candidate Starts for Squillium_270:

(3, 130402), (5, 130342), (7, 130336), (Start: 13 @130282 has 42 MA's), (19, 130249), (20, 130246), (27, 130186),

Gene: Squillium_18 Start: 8758, Stop: 8615, Start Num: 13

Candidate Starts for Squillium_18:

(3, 8878), (5, 8818), (7, 8812), (Start: 13 @8758 has 42 MA's), (19, 8725), (20, 8722), (27, 8662),

Gene: Stanimal_277 Start: 129436, Stop: 129281, Start Num: 14

Candidate Starts for Stanimal_277:

(4, 129547), (10, 129469), (12, 129451), (Start: 14 @129436 has 42 MA's), (16, 129406), (21, 129391), (26, 129334),

Gene: Stanimal_22 Start: 10162, Stop: 10007, Start Num: 14

Candidate Starts for Stanimal_22:

(4, 10273), (10, 10195), (12, 10177), (Start: 14 @10162 has 42 MA's), (16, 10132), (21, 10117), (26, 10060),

Gene: Starbow_21 Start: 10263, Stop: 10108, Start Num: 14

Candidate Starts for Starbow_21:

(4, 10374), (8, 10302), (10, 10296), (12, 10278), (Start: 13 @10266 has 42 MA's), (Start: 14 @10263 has 42 MA's), (17, 10230), (21, 10218), (22, 10206), (26, 10161), (27, 10155),

Gene: Starbow_278 Start: 129111, Stop: 128956, Start Num: 14

Candidate Starts for Starbow_278:

(4, 129222), (8, 129150), (10, 129144), (12, 129126), (Start: 13 @129114 has 42 MA's), (Start: 14 @129111 has 42 MA's), (17, 129078), (21, 129066), (22, 129054), (26, 129009), (27, 129003),

Gene: Sushi23_20 Start: 9046, Stop: 8903, Start Num: 13

Candidate Starts for Sushi23_20:

(Start: 13 @9046 has 42 MA's), (19, 9013), (20, 9010), (25, 8959), (27, 8950),

Gene: Sushi23_270 Start: 131889, Stop: 131746, Start Num: 13

Candidate Starts for Sushi23_270:

(Start: 13 @131889 has 42 MA's), (19, 131856), (20, 131853), (25, 131802), (27, 131793),

Gene: Targaryen_268 Start: 132898, Stop: 132755, Start Num: 13

Candidate Starts for Targaryen_268:

(3, 133018), (5, 132958), (7, 132952), (9, 132922), (Start: 13 @132898 has 42 MA's), (19, 132865), (20, 132862), (27, 132802),

Gene: Targaryen_17 Start: 9222, Stop: 9079, Start Num: 13

Candidate Starts for Targaryen_17:

(3, 9342), (5, 9282), (7, 9276), (9, 9246), (Start: 13 @9222 has 42 MA's), (19, 9189), (20, 9186), (27, 9126),

Gene: TomSawyer_286 Start: 131635, Stop: 131480, Start Num: 14

Candidate Starts for TomSawyer_286:

(4, 131746), (8, 131674), (10, 131668), (12, 131650), (Start: 13 @131638 has 42 MA's), (Start: 14 @131635 has 42 MA's), (17, 131602), (21, 131590), (22, 131578), (26, 131533), (27, 131527),

Gene: TomSawyer_21 Start: 9856, Stop: 9701, Start Num: 14

Candidate Starts for TomSawyer_21:

(4, 9967), (8, 9895), (10, 9889), (12, 9871), (Start: 13 @9859 has 42 MA's), (Start: 14 @9856 has 42 MA's), (17, 9823), (21, 9811), (22, 9799), (26, 9754), (27, 9748),

Gene: Tomas_23 Start: 10728, Stop: 10597, Start Num: 13

Candidate Starts for Tomas_23:

(Start: 13 @10728 has 42 MA's), (18, 10695),

Gene: Tomas_279 Start: 132435, Stop: 132304, Start Num: 13

Candidate Starts for Tomas_279:

(Start: 13 @132435 has 42 MA's), (18, 132402),

Gene: Watermoore_266 Start: 131642, Stop: 131499, Start Num: 13

Candidate Starts for Watermoore_266:

(Start: 13 @131642 has 42 MA's), (19, 131609), (20, 131606), (25, 131555), (27, 131546),

Gene: Watermoore_19 Start: 9046, Stop: 8903, Start Num: 13

Candidate Starts for Watermoore_19:

(Start: 13 @9046 has 42 MA's), (19, 9013), (20, 9010), (25, 8959), (27, 8950),

Gene: WhereRU_19 Start: 8588, Stop: 8445, Start Num: 13

Candidate Starts for WhereRU_19:

(3, 8708), (5, 8648), (7, 8642), (Start: 13 @8588 has 42 MA's), (19, 8555), (20, 8552), (27, 8492),

Gene: WhereRU_275 Start: 129733, Stop: 129590, Start Num: 13

Candidate Starts for WhereRU_275:

(3, 129853), (5, 129793), (7, 129787), (Start: 13 @129733 has 42 MA's), (19, 129700), (20, 129697), (27, 129637),

Gene: Wipeout_274 Start: 130609, Stop: 130454, Start Num: 14

Candidate Starts for Wipeout_274:

(4, 130720), (8, 130648), (10, 130642), (12, 130624), (Start: 13 @130612 has 42 MA's), (Start: 14 @130609 has 42 MA's), (17, 130576), (21, 130564), (22, 130552), (26, 130507), (27, 130501),

Gene: Wipeout_20 Start: 9878, Stop: 9723, Start Num: 14

Candidate Starts for Wipeout_20:

(4, 9989), (8, 9917), (10, 9911), (12, 9893), (Start: 13 @9881 has 42 MA's), (Start: 14 @9878 has 42 MA's), (17, 9845), (21, 9833), (22, 9821), (26, 9776), (27, 9770),

Gene: Wofford_278 Start: 130989, Stop: 130861, Start Num: 13

Candidate Starts for Wofford_278:

(6, 131046), (7, 131043), (Start: 13 @130989 has 42 MA's),

Gene: Wofford_20 Start: 9196, Stop: 9068, Start Num: 13

Candidate Starts for Wofford_20:

(6, 9253), (7, 9250), (Start: 13 @9196 has 42 MA's),

Gene: Yaboi_282 Start: 128980, Stop: 128825, Start Num: 14

Candidate Starts for Yaboi_282:

(4, 129091), (10, 129013), (12, 128995), (Start: 14 @128980 has 42 MA's), (16, 128950), (21, 128935), (26, 128878),

Gene: Yaboi_21 Start: 10162, Stop: 10007, Start Num: 14

Candidate Starts for Yaboi_21:

(4, 10273), (10, 10195), (12, 10177), (Start: 14 @10162 has 42 MA's), (16, 10132), (21, 10117), (26, 10060),