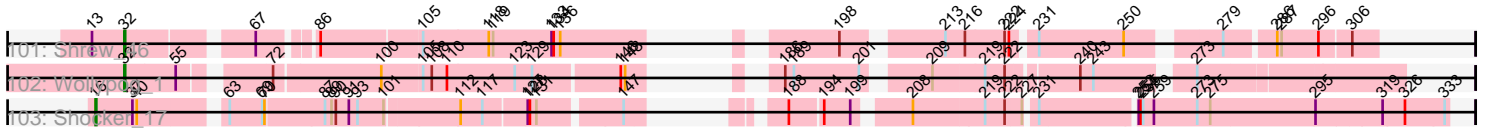


| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1: Fowimour_1 | 66 | 68 | 65 | 71 | 90 | 92 | 105 | 109 | 116 | 139 | 148 | 161 | 171 | 180 | 192 | 211 | 216 | 219 | 243 | 260 | 269 | 279 | 283 | 289 | 302 | 326 | 330 | | | | | |
| 2: Cuke_1 | 68 | 80 | 88 | 71 | 84 | 91 | 102 | 105 | 109 | 116 | 130 | 140 | 160 | 184 | 198 | 208 | 216 | 219 | 225 | 243 | 246 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | | |
| 3: Jindigami_1 | 64 | 64 | 68 | 74 | 80 | 91 | 102 | 105 | 109 | 116 | 129 | 139 | 148 | 160 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 4: Aikoy_1 | 64 | 68 | 80 | 80 | 84 | 91 | 102 | 105 | 109 | 116 | 129 | 139 | 148 | 160 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 5: Leopard_1 | 64 | 68 | 73 | 83 | 96 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 6: Gurgie_1 | 60 | 63 | 83 | 83 | 96 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 7: PigHead_1 | 63 | 73 | 83 | 83 | 96 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 8: Jaxgine_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 9: Galaxy_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 10: Lady_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 11: Cassio_1 | 64 | 68 | 70 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 |
| 12: Phrogs_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 13: Hept_8_8 + 14 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 14: Gumbail_7 + 1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 15: Phai_10rwa_8 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 16: Kand_8 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 17: Butter_scoth_8 | 64 | 68 | 71 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 |
| 18: Nova_8 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 19: Cmll_1 | 64 | 68 | 76 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 |
| 20: Hawkeye_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 21: Djokovic_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 22: Madi_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 23: Suzy_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 24: Sienna_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 25: LilyPad_1 | 64 | 68 | 76 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 |
| 26: Little_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 27: Rumi_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 28: Sadi_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 29: Birthday_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 30: LuckyLeg_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 31: Ape_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 32: Lav_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 33: Woj_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 34: Rota_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 35: Storm_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 36: Ran_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 37: Tillicus_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 38: Xenia_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 39: Patos_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 40: Dum_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 41: Fulcr_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 42: Lia_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 43: Dood_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 44: Mim_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 45: Lam_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 46: Parv_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 47: Otter_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | 208 | 216 | 228 | 236 | 241 | 258 | 260 | 269 | 279 | 286 | 289 | 302 | 326 | 330 | |
| 48: Eruta_1 | 64 | 68 | 80 | 80 | 91 | 102 | 105 | 109 | 116 | 130 | 138 | 143 | 151 | 161 | 171 | 180 | 192 | | | | | | | | | | | | | | | |

Pham 311283



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 311283 Report

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

Pham number 311283 has 174 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Fowlmouth_1, MrMiyagi_1
- Track 2 : Cuke_1
- Track 3 : Indlulamithi_1
- Track 4 : Aikoy_17, Onyinye_18
- Track 5 : Leopard_17
- Track 6 : GurgleFerb_10, Brad_10, Nellie_10, Adat_10
- Track 7 : PigHeaded_11
- Track 8 : Jasmine_11
- Track 9 : GalaxyEater_11
- Track 10 : LadyJasley_13
- Track 11 : Casserole_10
- Track 12 : Phroglets_9
- Track 13 : Helpful_8, Delton_8, SirHarley_7, SuperheroCarly_8, BigMama_7, Penelope2018_8, Visconti_8, Mopey_8, Thoth_8, Adjutor_8, Erk16_8, PBI1_8, Troll4_8, Giuseppe_8, Prager_8
- Track 14 : Gumball_7, PLOT_8
- Track 15 : Phalaborwa_8
- Track 16 : KandZ_8
- Track 17 : Butterscotch_8
- Track 18 : Nova_8
- Track 19 : Chill_8, WaldoWhy_8
- Track 20 : Hawkeye_9
- Track 21 : Djokovic_1, BiteSize_1, Beyoncage_1, Terapin_1
- Track 22 : Madi_1
- Track 23 : Suzy_1
- Track 24 : Sienna_1
- Track 25 : LilyPad_1
- Track 26 : LittleFella_1
- Track 27 : Rumi_2, Zany_2, Riduram_2, Jalebi_2, DaviePasture_2, Genamy16_2, Rukungu_2, NovaSharks_2, Jamemuya19_2, Pywacket_2, Alephilan_2, Sampudon_2, Avian_2, Alyssamiracle_2, MoiGyank_2, Charminar_2, RazorC_2
- Track 28 : Sadboi_2, Yikes_2, Gibbin_2, Gretellyn_2
- Track 29 : BirthdayBoy_2, NorManre_2
- Track 30 : LuckyLeo_1
- Track 31 : Apeppi_1
- Track 32 : LavAbarElk_2
- Track 33 : Wojtek_2

- Track 34 : Rota_2
- Track 35 : Stormer_2, Astralis_2
- Track 36 : Ranch_2
- Track 37 : Tillicus_2
- Track 38 : Xenia2_2
- Track 39 : Patos_2
- Track 40 : DumpTruck_2
- Track 41 : Fulcrum_2, GOATification_2
- Track 42 : Lila22_2
- Track 43 : DoobyDoo_2
- Track 44 : Mima20_2
- Track 45 : Lambo_2
- Track 46 : ParvusTarda_2
- Track 47 : OtterstedtS21_2
- Track 48 : Erutan_2
- Track 49 : NarutoRun_11, Tedro_11, Anakin_11, Tiggy93_11
- Track 50 : Cybele_11, Kate_11, Rachella_11, Neptune_11
- Track 51 : Ajin_11
- Track 52 : OhDear_11, AnnaSerena_11
- Track 53 : OverHedge_11
- Track 54 : Chivey_10, Hiddenleaf_10
- Track 55 : Dauntless_10, Erudite_10
- Track 56 : PhunaPhoke_11
- Track 57 : FountainFog_9
- Track 58 : FreddieHg_10, Hager_11, Krampus_11
- Track 59 : CoolCookie_11, Gilda_11, Pharpay_11
- Track 60 : Aesir_10, JDawG_11
- Track 61 : Potty_11
- Track 62 : Snakehole_12
- Track 63 : TinyMiny_11, Kors_11
- Track 64 : Rie18_11
- Track 65 : Bramble_11
- Track 66 : Artiphact_11
- Track 67 : MortySmith_10, SilentWarrior_10
- Track 68 : Karate_10
- Track 69 : Annapurna_10
- Track 70 : RikSengupta_11
- Track 71 : DannyDe_10
- Track 72 : Haunter_11
- Track 73 : Sparcetus_11
- Track 74 : JingleBells_10
- Track 75 : Tongui_10
- Track 76 : LordBart_11
- Track 77 : Crestdrop_10
- Track 78 : Poultruss_10
- Track 79 : Huwburt_35
- Track 80 : Triscuit_34
- Track 81 : Oaker_5, Konstantine_5
- Track 82 : Beckerton_5
- Track 83 : Puissant_5
- Track 84 : Predator_7
- Track 85 : BobtimousPrime_4
- Track 86 : Damien_4

- Track 87 : Thumb_4, Phreeze_4
- Track 88 : Nish23_4, Cborch11_4
- Track 89 : Megatron06_5
- Track 90 : DrLupo_6
- Track 91 : Barnyard_6
- Track 92 : Zenon_5, Nilo_5, Candle_4, Weiss13_5
- Track 93 : Rope_5, Papyrus_5, Yelo_4
- Track 94 : Riparian_5, Send513_4
- Track 95 : MontyDev_5
- Track 96 : Demikore_6
- Track 97 : Patience_6
- Track 98 : Madruga_5
- Track 99 : SuperSonics_7
- Track 100 : Labelle_6
- Track 101 : Shrew_46
- Track 102 : Wollypog_1
- Track 103 : Shocker_17

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

The start number called the most often in the published annotations is 16, it was called in 64 of the 159 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adjutor_8, Aesir_10, Ajin_11, Anakin_11, AnnaSerena_11, Annapurna_10, Artiphact_11, BigMama_7, Bramble_11, Butterscotch_8, Chill_8, Chivey_10, CoolCookie_11, Crestdrop_10, Cybele_11, DannyDe_10, Dauntless_10, Delton_8, Erk16_8, Erudite_10, FountainFog_9, FreddieHg_10, Gilda_11, Giuseppe_8, Gumball_7, Hager_11, Haunter_11, Helpful_8, Hiddenleaf_10, JDawG_11, JingleBells_10, Karate_10, Kate_11, Kors_11, Krampus_11, LordBart_11, Mopey_8, MortySmith_10, NarutoRun_11, Neptune_11, OhDear_11, OverHedge_11, PBI1_8, PLOT_8, Penelope2018_8, Pharpay_11, Phroglets_9, PhunaPhoke_11, Potty_11, Poultruss_10, Prager_8, Rachella_11, Rie18_11, RikSengupta_11, Shocker_17, SilentWarrior_10, SirHarley_7, Snakehole_12, Sparcetus_11, SuperheroCarly_8, Tedro_11, Thoth_8, Tiggy93_11, TinyMiny_11, Tongui_10, Troll4_8, Visconti_8, WaldoWhy_8,

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

-

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

- Adat_10, Aikoy_17, Alephilan_2, Alyssmiracle_2, Apeppi_1, Astralis_2, Avian_2, Barnyard_6, Beckerton_5, Beyoncage_1, BirthdayBoy_2, BiteSize_1, BobtimousPrime_4, Brad_10, Candle_4, Casserole_10, Cborch11_4, Charminar_2, Cuke_1, Damien_4, DaviePasture_2, Demikore_6, Djokovic_1, DoobyDoo_2, DrLupo_6, DumpTruck_2, Erutan_2, Fowlmouth_1, Fulcrum_2, GOATification_2, GalaxyEater_11, Genamy16_2, Gibbin_2, Gretellyn_2, GurpleFerb_10, Hawkeye_9, Huwbart_35, Indlulamithi_1, Jalebi_2, Jamemuya19_2, Jasmine_11, KandZ_8, Konstantine_5, Labelle_6, LadyJasley_13, Lambo_2, LavAbarElk_2, Leopard_17, Lila22_2, LilyPad_1, LittleFella_1, LuckyLeo_1, Madi_1, Madruga_5, Megatron06_5,

Mima20_2, MoiGyank_2, MontyDev_5, MrMiyagi_1, Nellie_10, Nilo_5, Nish23_4, NorManre_2, NovaSharks_2, Nova_8, Oaker_5, Onyinye_18, OtterstedtS21_2, Papyrus_5, ParvusTarda_2, Patience_6, Patos_2, Phalaborwa_8, Phreeze_4, PigHeaded_11, Predator_7, Puissant_5, Pywacket_2, Ranch_2, RazorC_2, Riduram_2, Riparian_5, Rope_5, Rota_2, Rukungu_2, Rumi_2, Sadboi_2, Sampudon_2, Send513_4, Shrew_46, Sienna_1, Stormer_2, SuperSonics_7, Suzy_1, Terapin_1, Thumb_4, Tillicus_2, Triscuit_34, Weiss13_5, Wojtek_2, Wollypog_1, Xenia2_2, Yelo_4, Yikes_2, Zany_2, Zenon_5,

Summary by start number:

Start 14:

- Found in 3 of 174 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KandZ_8 (D1), Nova_8 (D1), Phalaborwa_8 (D1),

Start 16:

- Found in 68 of 174 (39.1%) of genes in pham
- Manual Annotations of this start: 64 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adjutor_8 (D1), Aesir_10 (EF), Ajin_11 (EF), Anakin_11 (EF), AnnaSerena_11 (EF), Annapurna_10 (EF), Artiphact_11 (EF), BigMama_7 (D1), Bramble_11 (EF), Butterscotch_8 (D1), Chill_8 (D1), Chivey_10 (EF), CoolCookie_11 (EF), Crestdrop_10 (EF), Cybele_11 (EF), DannyDe_10 (EF), Dauntless_10 (EF), Delton_8 (D1), Erk16_8 (D1), Erudite_10 (EF), FountainFog_9 (EF), FreddieHg_10 (EF), Gilda_11 (EF), Giuseppe_8 (D1), Gumball_7 (D1), Hager_11 (EF), Haunter_11 (EF), Helpful_8 (D1), Hiddenleaf_10 (EF), JDawG_11 (EF), JingleBells_10 (EF), Karate_10 (EF), Kate_11 (EF), Kors_11 (EF), Krampus_11 (EF), LordBart_11 (EF), Mopey_8 (D1), MortySmith_10 (EF), NarutoRun_11 (EF), Neptune_11 (EF), OhDear_11 (EF), OverHedge_11 (EF), PBI1_8 (D1), PLOT_8 (D1), Penelope2018_8 (D1), Pharpay_11 (EF), Phroglets_9 (AV), PhunaPhoke_11 (EF), Potty_11 (EF), Poultruss_10 (EF), Prager_8 (D1), Rachella_11 (EF), Rie18_11 (EF), RikSengupta_11 (EF), Shocker_17 (singleton), SilentWarrior_10 (EF), SirHarley_7 (D1), Snakehole_12 (EF), Sparcetus_11 (EF), SuperheroCarly_8 (D1), Tedro_11 (EF), Thoth_8 (D1), Tiggy93_11 (EF), TinyMiny_11 (EF), Tongui_10 (EF), Troll4_8 (D1), Visconti_8 (D1), WaldoWhy_8 (D1),

Start 17:

- Found in 8 of 174 (4.6%) of genes in pham
- Manual Annotations of this start: 2 of 159
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Barnyard_6 (H2), DrLupo_6 (H2),

Start 18:

- Found in 3 of 174 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GalaxyEater_11 (AV), LadyJasley_13 (AV), PigHeaded_11 (AV),

Start 19:

- Found in 2 of 174 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Huwbert_35 (GG), Triscuit_34 (GG),

Start 20:

- Found in 6 of 174 (3.4%) of genes in pham
- Manual Annotations of this start: 6 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adat_10 (AV), Brad_10 (AV), Casserole_10 (AV), GurgleFerb_10 (AV), Jasmine_11 (AV), Nellie_10 (AV),

Start 22:

- Found in 1 of 174 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hawkeye_9 (D2),

Start 25:

- Found in 2 of 174 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beckerton_5 (H1), Megatron06_5 (H1),

Start 26:

- Found in 10 of 174 (5.7%) of genes in pham
- Manual Annotations of this start: 9 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobtimousPrime_4 (H1), Cborch11_4 (H1), Damien_4 (H1), Konstantine_5 (H1), Nish23_4 (H1), Oaker_5 (H1), Phreeze_4 (H1), Predator_7 (H1), Puissant_5 (H1), Thumb_4 (H1),

Start 27:

- Found in 9 of 174 (5.2%) of genes in pham
- Manual Annotations of this start: 1 of 159
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Labelle_6 (U),

Start 29:

- Found in 5 of 174 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 159
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Demikore_6 (U), Madrugua_5 (U), Patience_6 (U), SuperSonics_7 (U),

Start 32:

- Found in 6 of 174 (3.4%) of genes in pham
- Manual Annotations of this start: 3 of 159
- Called 50.0% of time when present
- Phage (with cluster) where this start called: LuckyLeo_1 (DV), Shrew_46 (singleton), Wollypog_1 (singleton),

Start 33:

- Found in 2 of 174 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikoy_17 (AE), Onyinye_18 (AE),

Start 34:

- Found in 1 of 174 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LittleFella_1 (DG2),

Start 36:

- Found in 1 of 174 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke_1 (AC),

Start 38:

- Found in 1 of 174 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 159
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Leopard_17 (AE),

Start 39:

- Found in 44 of 174 (25.3%) of genes in pham
- Manual Annotations of this start: 38 of 159
- Called 97.7% of time when present
- Phage (with cluster) where this start called: Alephilan_2 (DV), Alyssamiracle_2 (DV), Apeppi_1 (DV), Astralis_2 (DV), Avian_2 (DV), BirthdayBoy_2 (DV), Charminar_2 (DV), DaviePasture_2 (DV), DoobyDoo_2 (DV), DumpTruck_2 (DV), Erutan_2 (DV), Fulcrum_2 (DV), GOATification_2 (DV), Genamy16_2 (DV), Gibbin_2 (DV), Gretellyn_2 (DV), Jalebi_2 (DV), Jamemuya19_2 (DV), Lambo_2 (DV), LavAbarElk_2 (DV), Lila22_2 (DV), Mima20_2 (DV), MoiGyank_2 (DV), NorManre_2 (DV), NovaSharks_2 (DV), OtterstedtS21_2 (DV), ParvusTarda_2 (DV), Patos_2 (DV), Pywacket_2 (DV), Ranch_2 (DV), RazorC_2 (DV), Riduram_2 (DV), Rota_2 (DV), Rukungu_2 (DV), Rumi_2 (DV), Sadboi_2 (DV), Sampudon_2 (DV), Stormer_2 (DV), Tillicus_2 (DV), Wojtek_2 (DV), Xenia2_2 (DV), Yikes_2 (DV), Zany_2 (DV),

Start 41:

- Found in 13 of 174 (7.5%) of genes in pham
- Manual Annotations of this start: 12 of 159
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Candle_4 (R), Fowlmouth_1 (AC), MontyDev_5 (R), MrMiyagi_1 (AC), Nilo_5 (R), Papyrus_5 (R), Riparian_5 (R), Rope_5 (R), Send513_4 (R), Weiss13_5 (R), Yelo_4 (R), Zenon_5 (R),

Start 43:

- Found in 10 of 174 (5.7%) of genes in pham
- Manual Annotations of this start: 9 of 159
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Beyoncage_1 (DG1), BiteSize_1 (DG1), Djokovic_1 (DG1), Indlulamithi_1 (AC), LilyPad_1 (DG1), Madi_1 (DG1), Sienna_1 (DG1), Suzy_1 (DG1), Terapin_1 (DG1),

Summary by clusters:

There are 15 clusters represented in this pham: DG2, singleton, H1, AE, H2, EF, AC, GG, R, U, AV, DV, DG1, D2, D1,

Info for manual annotations of cluster AC:

- Start number 36 was manually annotated 1 time for cluster AC.
- Start number 41 was manually annotated 2 times for cluster AC.
- Start number 43 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AE:

- Start number 33 was manually annotated 2 times for cluster AE.
- Start number 38 was manually annotated 1 time for cluster AE.

Info for manual annotations of cluster AV:

- Start number 16 was manually annotated 1 time for cluster AV.
- Start number 18 was manually annotated 1 time for cluster AV.
- Start number 20 was manually annotated 6 times for cluster AV.

Info for manual annotations of cluster D1:

- Start number 14 was manually annotated 2 times for cluster D1.
- Start number 16 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 22 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DG1:

- Start number 43 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:

- Start number 34 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:

- Start number 32 was manually annotated 1 time for cluster DV.
- Start number 39 was manually annotated 38 times for cluster DV.

Info for manual annotations of cluster EF:

- Start number 16 was manually annotated 42 times for cluster EF.

Info for manual annotations of cluster GG:

- Start number 19 was manually annotated 2 times for cluster GG.

Info for manual annotations of cluster H1:

- Start number 25 was manually annotated 2 times for cluster H1.
- Start number 26 was manually annotated 9 times for cluster H1.

Info for manual annotations of cluster H2:

- Start number 17 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster R:

- Start number 41 was manually annotated 10 times for cluster R.

Info for manual annotations of cluster U:

- Start number 27 was manually annotated 1 time for cluster U.
- Start number 29 was manually annotated 2 times for cluster U.

Gene Information:

Gene: Adat_10 Start: 4571, Stop: 6154, Start Num: 20

Candidate Starts for Adat_10:

(Start: 20 @4571 has 6 MA's), (35, 4604), (42, 4616), (52, 4655), (62, 4697), (73, 4775), (83, 4808), (96, 4883), (111, 4994), (114, 5012), (135, 5132), (143, 5183), (151, 5231), (195, 5333), (206, 5420), (217, 5519), (262, 5756), (279, 5837), (280, 5840), (283, 5876), (304, 6005), (322, 6059), (325, 6071), (334, 6137), (336, 6146),

Gene: Adjutor_8 Start: 4540, Stop: 6306, Start Num: 16

Candidate Starts for Adjutor_8:

(Start: 16 @4540 has 64 MA's), (64, 4699), (86, 4813), (89, 4828), (97, 4882), (98, 4885), (99, 4891), (105, 4945), (110, 4978), (116, 5014), (117, 5026), (118, 5035), (119, 5041), (123, 5071), (126, 5086), (141, 5173), (148, 5215), (152, 5239), (169, 5338), (174, 5350), (176, 5368), (183, 5419), (189, 5440), (196, 5491), (197, 5500), (209, 5632), (218, 5692), (225, 5740), (236, 5791), (238, 5806), (268, 5926), (272, 5947), (279, 5983), (288, 6070), (292, 6097), (300, 6124), (335, 6277),

Gene: Aesir_10 Start: 2925, Stop: 4385, Start Num: 16

Candidate Starts for Aesir_10:

(Start: 16 @2925 has 64 MA's), (37, 2976), (45, 2994), (65, 3084), (75, 3147), (77, 3153), (89, 3216), (94, 3255), (110, 3366), (118, 3423), (129, 3483), (146, 3597), (189, 3678), (196, 3729), (200, 3762), (202, 3771), (209, 3840), (215, 3876), (216, 3882), (221, 3924), (222, 3936), (232, 3978), (283, 4236), (303, 4356), (310, 4371),

Gene: Aikoy_17 Start: 9842, Stop: 11560, Start Num: 33

Candidate Starts for Aikoy_17:

(2, 9713), (10, 9770), (30, 9836), (Start: 33 @9842 has 2 MA's), (60, 9935), (61, 9938), (64, 9962), (68, 9998), (80, 10043), (102, 10166), (116, 10277), (119, 10304), (120, 10307), (129, 10358), (148, 10478), (152, 10502), (155, 10532), (156, 10541), (170, 10604), (174, 10613), (193, 10733), (209, 10865), (216, 10907), (228, 10988), (236, 11042), (247, 11111), (272, 11213), (279, 11249), (286, 11318), (289, 11348), (297, 11378), (313, 11426), (327, 11486), (328, 11495),

Gene: Ajin_11 Start: 2960, Stop: 4441, Start Num: 16

Candidate Starts for Ajin_11:

(Start: 16 @2960 has 64 MA's), (Start: 27 @2987 has 1 MA's), (40, 3017), (47, 3035), (68, 3179), (75, 3209), (77, 3215), (99, 3341), (103, 3359), (108, 3407), (110, 3428), (123, 3521), (129, 3545), (189, 3740), (196, 3791), (209, 3902), (213, 3920), (214, 3926), (215, 3938), (216, 3944), (221, 3986), (222, 3998), (240, 4094), (242, 4103), (279, 4259), (280, 4262), (285, 4304),

Gene: Alephilan_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Alephilan_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Alyssamiracle_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Alyssamiracle_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Anakin_11 Start: 3139, Stop: 4599, Start Num: 16

Candidate Starts for Anakin_11:

(Start: 16 @3139 has 64 MA's), (37, 3190), (45, 3208), (75, 3361), (77, 3367), (94, 3469), (110, 3580), (118, 3637), (129, 3697), (146, 3811), (189, 3892), (196, 3943), (200, 3976), (202, 3985), (209, 4054), (215, 4090), (221, 4138), (222, 4150), (232, 4192), (283, 4450), (303, 4570), (310, 4585),

Gene: AnnaSerena_11 Start: 3136, Stop: 4596, Start Num: 16

Candidate Starts for AnnaSerena_11:

(Start: 16 @3136 has 64 MA's), (37, 3187), (45, 3205), (75, 3358), (77, 3364), (78, 3370), (89, 3427), (94, 3466), (110, 3577), (118, 3634), (129, 3694), (146, 3808), (189, 3889), (200, 3973), (202, 3982), (209, 4051), (215, 4087), (221, 4135), (222, 4147), (232, 4189), (283, 4447), (303, 4567), (310, 4582),

Gene: Annapurna_10 Start: 2869, Stop: 4329, Start Num: 16

Candidate Starts for Annapurna_10:

(Start: 16 @2869 has 64 MA's), (37, 2920), (45, 2938), (65, 3028), (75, 3091), (77, 3097), (89, 3160), (94, 3199), (110, 3310), (118, 3367), (129, 3427), (133, 3454), (146, 3541), (189, 3622), (196, 3673), (200, 3706), (202, 3715), (209, 3784), (215, 3820), (221, 3868), (222, 3880), (232, 3922), (283, 4180), (303, 4300), (310, 4315),

Gene: Apeppi_1 Start: 48, Stop: 1556, Start Num: 39

Candidate Starts for Apeppi_1:

(Start: 32 @33 has 3 MA's), (Start: 39 @48 has 38 MA's), (64, 147), (82, 243), (89, 276), (102, 351), (123, 519), (126, 534), (133, 570), (134, 573), (139, 612), (144, 639), (148, 663), (152, 687), (158, 726), (160, 738), (177, 762), (179, 789), (181, 798), (186, 822), (196, 885), (197, 894), (208, 969), (212, 1008), (216, 1038), (272, 1335), (276, 1356), (286, 1434),

Gene: Artiphact_11 Start: 3128, Stop: 4588, Start Num: 16

Candidate Starts for Artiphact_11:

(Start: 16 @3128 has 64 MA's), (37, 3179), (45, 3197), (75, 3350), (77, 3356), (89, 3419), (94, 3458), (110, 3569), (118, 3626), (129, 3686), (146, 3800), (189, 3881), (200, 3965), (202, 3974), (209, 4043), (215, 4079), (221, 4127), (222, 4139), (232, 4181), (251, 4304), (283, 4439), (303, 4559), (310, 4574),

Gene: Astralis_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Astralis_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Avian_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Avian_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Barnyard_6 Start: 2659, Stop: 4404, Start Num: 17

Candidate Starts for Barnyard_6:

(Start: 17 @2659 has 2 MA's), (37, 2707), (44, 2719), (45, 2722), (58, 2779), (61, 2788), (66, 2833), (75, 2878), (80, 2893), (105, 3058), (108, 3070), (117, 3139), (118, 3148), (119, 3154), (125, 3196), (127, 3202), (131, 3214), (142, 3292), (145, 3307), (152, 3352), (154, 3373), (163, 3442), (170, 3454),

(174, 3463), (180, 3514), (183, 3532), (196, 3604), (197, 3613), (201, 3643), (210, 3727), (236, 3895), (258, 4018), (271, 4075), (272, 4078), (286, 4186), (294, 4237), (300, 4261), (311, 4297),

Gene: Beckerton_5 Start: 2668, Stop: 4377, Start Num: 25

Candidate Starts for Beckerton_5:

(4, 2566), (5, 2584), (11, 2629), (21, 2659), (24, 2665), (Start: 25 @2668 has 2 MA's), (58, 2761), (60, 2767), (61, 2770), (68, 2830), (74, 2860), (80, 2878), (94, 2965), (105, 3046), (106, 3049), (117, 3127), (119, 3142), (121, 3160), (125, 3184), (127, 3190), (130, 3199), (140, 3271), (163, 3409), (174, 3430), (179, 3475), (196, 3571), (197, 3580), (203, 3619), (208, 3661), (209, 3688), (211, 3697), (212, 3700), (226, 3802), (242, 3895), (248, 3937), (251, 3955), (272, 4045), (274, 4060), (286, 4156), (290, 4195), (291, 4198), (300, 4231), (314, 4276), (317, 4285), (321, 4303),

Gene: Beyoncage_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for Beyoncage_1:

(Start: 43 @1 has 9 MA's), (49, 28), (59, 67), (80, 178), (85, 202), (105, 343), (119, 439), (121, 457), (148, 613), (150, 625), (160, 688), (162, 703), (167, 712), (178, 766), (187, 814), (189, 823), (197, 883), (208, 958), (209, 985), (257, 1261), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393), (297, 1453), (303, 1483),

Gene: BigMama_7 Start: 4616, Stop: 6382, Start Num: 16

Candidate Starts for BigMama_7:

(Start: 16 @4616 has 64 MA's), (64, 4775), (86, 4889), (89, 4904), (97, 4958), (98, 4961), (99, 4967), (105, 5021), (110, 5054), (116, 5090), (117, 5102), (118, 5111), (119, 5117), (123, 5147), (126, 5162), (141, 5249), (148, 5291), (152, 5315), (169, 5414), (174, 5426), (176, 5444), (183, 5495), (189, 5516), (196, 5567), (197, 5576), (209, 5708), (218, 5768), (225, 5816), (236, 5867), (238, 5882), (268, 6002), (272, 6023), (279, 6059), (288, 6146), (292, 6173), (300, 6200), (335, 6353),

Gene: BirthdayBoy_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for BirthdayBoy_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (256, 1428), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: BiteSize_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for BiteSize_1:

(Start: 43 @1 has 9 MA's), (49, 28), (59, 67), (80, 178), (85, 202), (105, 343), (119, 439), (121, 457), (148, 613), (150, 625), (160, 688), (162, 703), (167, 712), (178, 766), (187, 814), (189, 823), (197, 883), (208, 958), (209, 985), (257, 1261), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393), (297, 1453), (303, 1483),

Gene: BobtimousPrime_4 Start: 2133, Stop: 3842, Start Num: 26

Candidate Starts for BobtimousPrime_4:

(12, 2094), (Start: 17 @2112 has 2 MA's), (Start: 26 @2133 has 9 MA's), (58, 2226), (60, 2232), (61, 2235), (68, 2295), (74, 2325), (80, 2343), (105, 2511), (106, 2514), (119, 2607), (121, 2625), (125, 2649), (127, 2655), (130, 2664), (140, 2736), (163, 2874), (174, 2895), (179, 2940), (196, 3036), (197, 3045), (203, 3084), (208, 3126), (209, 3153), (211, 3162), (212, 3165), (226, 3267), (242, 3360), (248, 3402), (251, 3420), (272, 3510), (274, 3525), (286, 3621), (290, 3660), (291, 3663), (300, 3696), (314, 3741), (317, 3750), (321, 3768),

Gene: Brad_10 Start: 4569, Stop: 6152, Start Num: 20

Candidate Starts for Brad_10:

(Start: 20 @4569 has 6 MA's), (35, 4602), (42, 4614), (52, 4653), (62, 4695), (73, 4773), (83, 4806), (96, 4881), (111, 4992), (114, 5010), (135, 5130), (143, 5181), (151, 5229), (195, 5331), (206, 5418),

(217, 5517), (262, 5754), (279, 5835), (280, 5838), (283, 5874), (304, 6003), (322, 6057), (325, 6069), (334, 6135), (336, 6144),

Gene: Bramble_11 Start: 2893, Stop: 4374, Start Num: 16

Candidate Starts for Bramble_11:

(Start: 16 @2893 has 64 MA's), (Start: 27 @2920 has 1 MA's), (40, 2950), (47, 2968), (68, 3112), (75, 3142), (77, 3148), (99, 3274), (103, 3292), (108, 3340), (110, 3361), (129, 3478), (189, 3673), (209, 3835), (213, 3853), (214, 3859), (215, 3871), (216, 3877), (221, 3919), (222, 3931), (240, 4027), (242, 4036), (279, 4192), (280, 4195), (285, 4237),

Gene: Butterscotch_8 Start: 4603, Stop: 6369, Start Num: 16

Candidate Starts for Butterscotch_8:

(Start: 16 @4603 has 64 MA's), (64, 4762), (86, 4876), (89, 4891), (97, 4945), (98, 4948), (99, 4954), (105, 5008), (110, 5041), (116, 5077), (117, 5089), (118, 5098), (119, 5104), (123, 5134), (126, 5149), (141, 5236), (148, 5278), (152, 5302), (169, 5401), (174, 5413), (176, 5431), (183, 5482), (189, 5503), (196, 5554), (197, 5563), (209, 5695), (218, 5755), (225, 5803), (236, 5854), (268, 5989), (272, 6010), (279, 6046), (288, 6133), (292, 6160), (300, 6187), (335, 6340),

Gene: Candle_4 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Candle_4:

(Start: 41 @1624 has 12 MA's), (65, 1732), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (319, 3148), (338, 3259),

Gene: Casserole_10 Start: 4632, Stop: 6215, Start Num: 20

Candidate Starts for Casserole_10:

(Start: 20 @4632 has 6 MA's), (35, 4665), (42, 4677), (52, 4716), (73, 4836), (83, 4869), (88, 4896), (96, 4944), (111, 5055), (114, 5073), (135, 5193), (143, 5244), (151, 5292), (195, 5394), (206, 5481), (217, 5580), (256, 5796), (262, 5817), (279, 5898), (280, 5901), (283, 5937), (304, 6066), (322, 6120), (325, 6132), (334, 6198), (336, 6207),

Gene: Cborch11_4 Start: 2133, Stop: 3842, Start Num: 26

Candidate Starts for Cborch11_4:

(12, 2094), (Start: 17 @2112 has 2 MA's), (Start: 26 @2133 has 9 MA's), (58, 2226), (60, 2232), (61, 2235), (68, 2295), (74, 2325), (80, 2343), (94, 2430), (105, 2511), (106, 2514), (119, 2607), (121, 2625), (125, 2649), (127, 2655), (140, 2736), (163, 2874), (174, 2895), (179, 2940), (196, 3036), (197, 3045), (203, 3084), (208, 3126), (209, 3153), (211, 3162), (212, 3165), (226, 3267), (242, 3360), (248, 3402), (251, 3420), (272, 3510), (274, 3525), (286, 3621), (290, 3660), (291, 3663), (300, 3696), (314, 3741), (317, 3750), (321, 3768),

Gene: Charminar_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Charminar_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Chill_8 Start: 4606, Stop: 6372, Start Num: 16

Candidate Starts for Chill_8:

(Start: 16 @4606 has 64 MA's), (64, 4765), (86, 4879), (89, 4894), (97, 4948), (98, 4951), (99, 4957), (105, 5011), (110, 5044), (116, 5080), (117, 5092), (118, 5101), (119, 5107), (123, 5137), (126, 5152), (141, 5239), (148, 5281), (152, 5305), (169, 5404), (174, 5416), (176, 5434), (183, 5485), (189, 5506), (196, 5557), (197, 5566), (209, 5698), (218, 5758), (225, 5806), (236, 5857), (238, 5872), (268, 5992),

(271, 6010), (272, 6013), (279, 6049), (288, 6136), (292, 6163), (300, 6190), (335, 6343),

Gene: Chivey_10 Start: 2862, Stop: 4322, Start Num: 16

Candidate Starts for Chivey_10:

(Start: 16 @2862 has 64 MA's), (37, 2913), (45, 2931), (75, 3084), (77, 3090), (89, 3153), (94, 3192), (110, 3303), (118, 3360), (129, 3420), (146, 3534), (189, 3615), (196, 3666), (200, 3699), (202, 3708), (209, 3777), (215, 3813), (221, 3861), (222, 3873), (232, 3915), (283, 4173), (303, 4293), (310, 4308),

Gene: CoolCookie_11 Start: 3131, Stop: 4591, Start Num: 16

Candidate Starts for CoolCookie_11:

(Start: 16 @3131 has 64 MA's), (37, 3182), (45, 3200), (75, 3353), (77, 3359), (89, 3422), (94, 3461), (110, 3572), (118, 3629), (129, 3689), (146, 3803), (189, 3884), (200, 3968), (202, 3977), (209, 4046), (215, 4082), (221, 4130), (222, 4142), (232, 4184), (283, 4442), (303, 4562), (310, 4577),

Gene: Crestdrop_10 Start: 2735, Stop: 4195, Start Num: 16

Candidate Starts for Crestdrop_10:

(Start: 16 @2735 has 64 MA's), (37, 2786), (45, 2804), (65, 2894), (75, 2957), (77, 2963), (89, 3026), (94, 3065), (110, 3176), (118, 3233), (129, 3293), (146, 3407), (189, 3488), (196, 3539), (200, 3572), (202, 3581), (209, 3650), (215, 3686), (221, 3734), (222, 3746), (232, 3788), (283, 4046), (310, 4181),

Gene: Cuke_1 Start: 1, Stop: 1644, Start Num: 36

Candidate Starts for Cuke_1:

(Start: 36 @1 has 1 MA's), (Start: 41 @10 has 12 MA's), (45, 19), (46, 22), (65, 118), (71, 166), (84, 214), (94, 283), (102, 319), (105, 361), (109, 388), (116, 430), (118, 451), (139, 580), (148, 631), (150, 643), (161, 673), (171, 694), (180, 754), (192, 811), (211, 964), (216, 997), (243, 1156), (260, 1243), (269, 1264), (271, 1276), (279, 1315), (280, 1318), (286, 1384), (302, 1459), (327, 1555), (332, 1600), (337, 1624),

Gene: Cybele_11 Start: 3104, Stop: 4564, Start Num: 16

Candidate Starts for Cybele_11:

(Start: 16 @3104 has 64 MA's), (37, 3155), (45, 3173), (75, 3326), (77, 3332), (94, 3434), (110, 3545), (118, 3602), (129, 3662), (146, 3776), (189, 3857), (200, 3941), (202, 3950), (209, 4019), (215, 4055), (221, 4103), (222, 4115), (232, 4157), (283, 4415), (303, 4535), (310, 4550),

Gene: Damien_4 Start: 2133, Stop: 3842, Start Num: 26

Candidate Starts for Damien_4:

(12, 2094), (Start: 17 @2112 has 2 MA's), (Start: 26 @2133 has 9 MA's), (58, 2226), (60, 2232), (61, 2235), (68, 2295), (74, 2325), (80, 2343), (94, 2430), (105, 2511), (106, 2514), (119, 2607), (121, 2625), (125, 2649), (127, 2655), (130, 2664), (140, 2736), (163, 2874), (174, 2895), (179, 2940), (196, 3036), (197, 3045), (203, 3084), (208, 3126), (209, 3153), (211, 3162), (212, 3165), (226, 3267), (242, 3360), (248, 3402), (251, 3420), (272, 3510), (274, 3525), (286, 3621), (290, 3660), (291, 3663), (300, 3696), (314, 3741), (317, 3750), (321, 3768),

Gene: DannyDe_10 Start: 2853, Stop: 4313, Start Num: 16

Candidate Starts for DannyDe_10:

(Start: 16 @2853 has 64 MA's), (37, 2904), (45, 2922), (65, 3012), (75, 3075), (77, 3081), (89, 3144), (94, 3183), (108, 3273), (110, 3294), (118, 3351), (129, 3411), (146, 3525), (189, 3606), (196, 3657), (200, 3690), (202, 3699), (209, 3768), (215, 3804), (221, 3852), (222, 3864), (232, 3906), (283, 4164), (303, 4284), (310, 4299),

Gene: Dauntless_10 Start: 2854, Stop: 4314, Start Num: 16

Candidate Starts for Dauntless_10:

(Start: 16 @2854 has 64 MA's), (37, 2905), (45, 2923), (65, 3013), (75, 3076), (77, 3082), (89, 3145), (94, 3184), (110, 3295), (118, 3352), (129, 3412), (146, 3526), (189, 3607), (196, 3658), (200, 3691), (202, 3700), (209, 3769), (215, 3805), (221, 3853), (222, 3865), (232, 3907), (283, 4165), (303, 4285), (310, 4300),

Gene: DaviePasture_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for DaviePasture_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Delton_8 Start: 4612, Stop: 6378, Start Num: 16

Candidate Starts for Delton_8:

(Start: 16 @4612 has 64 MA's), (64, 4771), (86, 4885), (89, 4900), (97, 4954), (98, 4957), (99, 4963), (105, 5017), (110, 5050), (116, 5086), (117, 5098), (118, 5107), (119, 5113), (123, 5143), (126, 5158), (141, 5245), (148, 5287), (152, 5311), (169, 5410), (174, 5422), (176, 5440), (183, 5491), (189, 5512), (196, 5563), (197, 5572), (209, 5704), (218, 5764), (225, 5812), (236, 5863), (238, 5878), (268, 5998), (272, 6019), (279, 6055), (288, 6142), (292, 6169), (300, 6196), (335, 6349),

Gene: Demikore_6 Start: 2636, Stop: 4303, Start Num: 29

Candidate Starts for Demikore_6:

(Start: 29 @2636 has 2 MA's), (61, 2744), (75, 2834), (79, 2846), (80, 2849), (100, 2966), (105, 3014), (108, 3026), (118, 3104), (119, 3110), (121, 3128), (132, 3176), (148, 3284), (163, 3338), (170, 3350), (174, 3359), (180, 3410), (186, 3437), (208, 3584), (209, 3611), (220, 3689), (226, 3725), (236, 3785), (238, 3800), (245, 3848), (258, 3908), (271, 3965), (272, 3968), (294, 4127),

Gene: Djokovic_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for Djokovic_1:

(Start: 43 @1 has 9 MA's), (49, 28), (59, 67), (80, 178), (85, 202), (105, 343), (119, 439), (121, 457), (148, 613), (150, 625), (160, 688), (162, 703), (167, 712), (178, 766), (187, 814), (189, 823), (197, 883), (208, 958), (209, 985), (257, 1261), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393), (297, 1453), (303, 1483),

Gene: DoobyDoo_2 Start: 201, Stop: 1709, Start Num: 39

Candidate Starts for DoobyDoo_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 240), (89, 429), (102, 504), (123, 672), (133, 723), (134, 726), (139, 765), (144, 792), (148, 816), (152, 840), (160, 891), (177, 915), (179, 942), (181, 951), (196, 1038), (208, 1122), (212, 1161), (215, 1185), (216, 1191), (264, 1455), (276, 1509), (278, 1515), (286, 1587),

Gene: DrLupo_6 Start: 2630, Stop: 4312, Start Num: 17

Candidate Starts for DrLupo_6:

(Start: 17 @2630 has 2 MA's), (61, 2756), (66, 2801), (80, 2861), (94, 2948), (99, 2972), (105, 3026), (115, 3092), (119, 3122), (125, 3164), (127, 3170), (131, 3182), (145, 3275), (152, 3320), (163, 3350), (170, 3362), (174, 3371), (180, 3422), (183, 3440), (186, 3449), (196, 3512), (201, 3551), (204, 3563), (207, 3593), (209, 3629), (217, 3683), (225, 3740), (236, 3803), (258, 3926), (271, 3983), (272, 3986), (286, 4094), (289, 4124), (294, 4145), (300, 4169), (311, 4205),

Gene: DumpTruck_2 Start: 204, Stop: 1715, Start Num: 39

Candidate Starts for DumpTruck_2:

(Start: 39 @204 has 38 MA's), (72, 357), (75, 369), (89, 432), (95, 474), (100, 501), (102, 507), (117, 630), (118, 639), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (179, 945), (187, 981), (197, 1050), (208, 1125), (209, 1152), (212, 1164), (213, 1170), (219, 1221), (225,

1263), (256, 1428), (261, 1446), (272, 1494), (276, 1515), (286, 1593), (289, 1623),

Gene: Erk16_8 Start: 4612, Stop: 6378, Start Num: 16

Candidate Starts for Erk16_8:

(Start: 16 @4612 has 64 MA's), (64, 4771), (86, 4885), (89, 4900), (97, 4954), (98, 4957), (99, 4963), (105, 5017), (110, 5050), (116, 5086), (117, 5098), (118, 5107), (119, 5113), (123, 5143), (126, 5158), (141, 5245), (148, 5287), (152, 5311), (169, 5410), (174, 5422), (176, 5440), (183, 5491), (189, 5512), (196, 5563), (197, 5572), (209, 5704), (218, 5764), (225, 5812), (236, 5863), (238, 5878), (268, 5998), (272, 6019), (279, 6055), (288, 6142), (292, 6169), (300, 6196), (335, 6349),

Gene: Erudite_10 Start: 2854, Stop: 4314, Start Num: 16

Candidate Starts for Erudite_10:

(Start: 16 @2854 has 64 MA's), (37, 2905), (45, 2923), (65, 3013), (75, 3076), (77, 3082), (89, 3145), (94, 3184), (110, 3295), (118, 3352), (129, 3412), (146, 3526), (189, 3607), (196, 3658), (200, 3691), (202, 3700), (209, 3769), (215, 3805), (221, 3853), (222, 3865), (232, 3907), (283, 4165), (303, 4285), (310, 4300),

Gene: Erutan_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Erutan_2:

(Start: 32 @186 has 3 MA's), (Start: 39 @201 has 38 MA's), (53, 243), (57, 261), (64, 303), (72, 357), (82, 399), (89, 432), (102, 507), (123, 675), (126, 690), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (158, 882), (160, 894), (177, 918), (179, 945), (181, 954), (186, 978), (196, 1041), (197, 1050), (208, 1125), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: FountainFog_9 Start: 2861, Stop: 4321, Start Num: 16

Candidate Starts for FountainFog_9:

(Start: 16 @2861 has 64 MA's), (37, 2912), (45, 2930), (56, 2975), (65, 3020), (71, 3068), (75, 3083), (77, 3089), (89, 3152), (94, 3191), (110, 3302), (118, 3359), (129, 3419), (146, 3533), (189, 3614), (202, 3707), (209, 3776), (215, 3812), (216, 3818), (221, 3860), (222, 3872), (232, 3914), (244, 4004), (275, 4115), (278, 4124), (283, 4172), (286, 4205), (310, 4307),

Gene: Fowlmouth_1 Start: 1, Stop: 1638, Start Num: 41

Candidate Starts for Fowlmouth_1:

(Start: 41 @1 has 12 MA's), (46, 13), (58, 73), (65, 109), (71, 157), (99, 298), (102, 310), (105, 352), (109, 379), (116, 421), (139, 571), (148, 622), (150, 634), (152, 646), (192, 802), (211, 955), (216, 988), (219, 1015), (243, 1147), (260, 1234), (269, 1255), (271, 1267), (279, 1306), (283, 1342), (289, 1405), (302, 1450), (327, 1549), (329, 1561), (330, 1591),

Gene: FreddieHg_10 Start: 2875, Stop: 4335, Start Num: 16

Candidate Starts for FreddieHg_10:

(Start: 16 @2875 has 64 MA's), (37, 2926), (45, 2944), (75, 3097), (77, 3103), (78, 3109), (89, 3166), (94, 3205), (110, 3316), (118, 3373), (129, 3433), (146, 3547), (189, 3628), (200, 3712), (202, 3721), (209, 3790), (215, 3826), (221, 3874), (222, 3886), (232, 3928), (283, 4186), (310, 4321),

Gene: Fulcrum_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Fulcrum_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: GOATification_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for GOATification_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: GalaxyEater_11 Start: 5173, Stop: 6732, Start Num: 18

Candidate Starts for GalaxyEater_11:

(1, 5077), (3, 5083), (7, 5119), (8, 5125), (9, 5137), (Start: 18 @5173 has 1 MA's), (31, 5203), (91, 5470), (107, 5569), (111, 5602), (114, 5620), (135, 5740), (137, 5749), (138, 5758), (151, 5839), (153, 5842), (194, 5935), (205, 5983), (206, 6016), (217, 6115), (230, 6190), (256, 6334), (262, 6355), (276, 6421), (279, 6436), (283, 6475), (291, 6550), (293, 6556), (295, 6559), (301, 6583), (324, 6661),

Gene: Genamy16_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Genamy16_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Gibbin_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Gibbin_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Gilda_11 Start: 3128, Stop: 4588, Start Num: 16

Candidate Starts for Gilda_11:

(Start: 16 @3128 has 64 MA's), (37, 3179), (45, 3197), (75, 3350), (77, 3356), (89, 3419), (94, 3458), (110, 3569), (118, 3626), (129, 3686), (146, 3800), (189, 3881), (200, 3965), (202, 3974), (209, 4043), (215, 4079), (221, 4127), (222, 4139), (232, 4181), (283, 4439), (303, 4559), (310, 4574),

Gene: Giuseppe_8 Start: 4595, Stop: 6361, Start Num: 16

Candidate Starts for Giuseppe_8:

(Start: 16 @4595 has 64 MA's), (64, 4754), (86, 4868), (89, 4883), (97, 4937), (98, 4940), (99, 4946), (105, 5000), (110, 5033), (116, 5069), (117, 5081), (118, 5090), (119, 5096), (123, 5126), (126, 5141), (141, 5228), (148, 5270), (152, 5294), (169, 5393), (174, 5405), (176, 5423), (183, 5474), (189, 5495), (196, 5546), (197, 5555), (209, 5687), (218, 5747), (225, 5795), (236, 5846), (238, 5861), (268, 5981), (272, 6002), (279, 6038), (288, 6125), (292, 6152), (300, 6179), (335, 6332),

Gene: Gretellyn_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Gretellyn_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Gumball_7 Start: 4550, Stop: 6316, Start Num: 16

Candidate Starts for Gumball_7:

(Start: 16 @4550 has 64 MA's), (64, 4709), (86, 4823), (89, 4838), (97, 4892), (99, 4901), (105, 4955), (110, 4988), (116, 5024), (117, 5036), (118, 5045), (119, 5051), (123, 5081), (126, 5096), (141, 5183), (148, 5225), (152, 5249), (169, 5348), (174, 5360), (176, 5378), (183, 5429), (189, 5450), (196, 5501), (197, 5510), (209, 5642), (218, 5702), (225, 5750), (236, 5801), (238, 5816), (268, 5936), (272, 5957), (279, 5993), (288, 6080), (292, 6107), (300, 6134), (335, 6287),

Gene: GurpleFerb_10 Start: 4570, Stop: 6153, Start Num: 20

Candidate Starts for GurpleFerb_10:

(Start: 20 @4570 has 6 MA's), (35, 4603), (42, 4615), (52, 4654), (62, 4696), (73, 4774), (83, 4807), (96, 4882), (111, 4993), (114, 5011), (135, 5131), (143, 5182), (151, 5230), (195, 5332), (206, 5419), (217, 5518), (262, 5755), (279, 5836), (280, 5839), (283, 5875), (304, 6004), (322, 6058), (325, 6070), (334, 6136), (336, 6145),

Gene: Hager_11 Start: 3129, Stop: 4577, Start Num: 16

Candidate Starts for Hager_11:

(Start: 16 @3129 has 64 MA's), (37, 3168), (45, 3186), (75, 3339), (77, 3345), (78, 3351), (89, 3408), (94, 3447), (110, 3558), (118, 3615), (129, 3675), (146, 3789), (189, 3870), (200, 3954), (202, 3963), (209, 4032), (215, 4068), (221, 4116), (222, 4128), (232, 4170), (283, 4428), (310, 4563),

Gene: Haunter_11 Start: 3078, Stop: 4538, Start Num: 16

Candidate Starts for Haunter_11:

(Start: 16 @3078 has 64 MA's), (37, 3129), (45, 3147), (75, 3300), (77, 3306), (89, 3369), (94, 3408), (110, 3519), (118, 3576), (129, 3636), (146, 3750), (189, 3831), (196, 3882), (200, 3915), (202, 3924), (209, 3993), (215, 4029), (221, 4077), (222, 4089), (232, 4131), (283, 4389), (303, 4509), (310, 4524),

Gene: Hawkeye_9 Start: 4326, Stop: 6050, Start Num: 22

Candidate Starts for Hawkeye_9:

(Start: 22 @4326 has 1 MA's), (51, 4404), (53, 4413), (72, 4524), (76, 4539), (86, 4584), (89, 4599), (105, 4716), (107, 4722), (110, 4749), (118, 4806), (119, 4812), (141, 4944), (148, 4986), (150, 4998), (152, 5010), (156, 5049), (169, 5109), (174, 5121), (176, 5139), (189, 5211), (197, 5271), (209, 5373), (216, 5415), (218, 5433), (219, 5442), (272, 5688), (279, 5724), (288, 5811), (299, 5862), (305, 5892), (316, 5916),

Gene: Helpful_8 Start: 4603, Stop: 6369, Start Num: 16

Candidate Starts for Helpful_8:

(Start: 16 @4603 has 64 MA's), (64, 4762), (86, 4876), (89, 4891), (97, 4945), (98, 4948), (99, 4954), (105, 5008), (110, 5041), (116, 5077), (117, 5089), (118, 5098), (119, 5104), (123, 5134), (126, 5149), (141, 5236), (148, 5278), (152, 5302), (169, 5401), (174, 5413), (176, 5431), (183, 5482), (189, 5503), (196, 5554), (197, 5563), (209, 5695), (218, 5755), (225, 5803), (236, 5854), (238, 5869), (268, 5989), (272, 6010), (279, 6046), (288, 6133), (292, 6160), (300, 6187), (335, 6340),

Gene: Hiddenleaf_10 Start: 2862, Stop: 4322, Start Num: 16

Candidate Starts for Hiddenleaf_10:

(Start: 16 @2862 has 64 MA's), (37, 2913), (45, 2931), (75, 3084), (77, 3090), (89, 3153), (94, 3192), (110, 3303), (118, 3360), (129, 3420), (146, 3534), (189, 3615), (196, 3666), (200, 3699), (202, 3708), (209, 3777), (215, 3813), (221, 3861), (222, 3873), (232, 3915), (283, 4173), (303, 4293), (310, 4308),

Gene: Huwbert_35 Start: 15707, Stop: 17137, Start Num: 19

Candidate Starts for Huwbert_35:

(Start: 19 @15707 has 2 MA's), (23, 15719), (60, 15833), (64, 15860), (86, 15953), (105, 16085), (118, 16172), (126, 16223), (134, 16262), (136, 16271), (148, 16361), (184, 16418), (194, 16478), (197, 16496), (198, 16499), (222, 16697), (229, 16715), (242, 16790), (248, 16832), (249, 16838), (270, 16898), (279, 16946), (286, 17009), (298, 17072), (313, 17117),

Gene: Indlulamithi_1 Start: 1, Stop: 1710, Start Num: 43

Candidate Starts for Indlulamithi_1:

(Start: 43 @1 has 9 MA's), (46, 10), (60, 76), (65, 106), (68, 139), (74, 169), (97, 289), (102, 310), (105, 352), (109, 379), (116, 421), (130, 505), (148, 622), (165, 739), (168, 742), (184, 829), (196, 898), (225, 1120), (243, 1210), (246, 1234), (255, 1279), (261, 1300), (265, 1318), (266, 1321), (271, 1345), (272, 1348), (279, 1384), (280, 1387), (286, 1453), (289, 1483), (297, 1513), (318, 1582), (320, 1597), (332, 1663),

Gene: JDawG_11 Start: 2919, Stop: 4379, Start Num: 16

Candidate Starts for JDawG_11:

(Start: 16 @2919 has 64 MA's), (37, 2970), (45, 2988), (65, 3078), (75, 3141), (77, 3147), (89, 3210), (94, 3249), (110, 3360), (118, 3417), (129, 3477), (146, 3591), (189, 3672), (196, 3723), (200, 3756), (202, 3765), (209, 3834), (215, 3870), (216, 3876), (221, 3918), (222, 3930), (232, 3972), (283, 4230), (303, 4350), (310, 4365),

Gene: Jalebi_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Jalebi_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Jamemuya19_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Jamemuya19_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Jasmine_11 Start: 4672, Stop: 6255, Start Num: 20

Candidate Starts for Jasmine_11:

(Start: 20 @4672 has 6 MA's), (35, 4705), (42, 4717), (52, 4756), (73, 4876), (83, 4909), (96, 4984), (111, 5095), (114, 5113), (135, 5233), (143, 5284), (151, 5332), (195, 5434), (206, 5521), (217, 5620), (262, 5857), (279, 5938), (280, 5941), (283, 5977), (304, 6106), (322, 6160), (325, 6172), (334, 6238), (336, 6247),

Gene: JingleBells_10 Start: 2931, Stop: 4391, Start Num: 16

Candidate Starts for JingleBells_10:

(Start: 16 @2931 has 64 MA's), (37, 2982), (45, 3000), (65, 3090), (75, 3153), (77, 3159), (89, 3222), (94, 3261), (110, 3372), (118, 3429), (129, 3489), (146, 3603), (189, 3684), (196, 3735), (200, 3768), (202, 3777), (209, 3846), (215, 3882), (221, 3930), (222, 3942), (232, 3984), (283, 4242), (303, 4362), (310, 4377),

Gene: KandZ_8 Start: 4697, Stop: 6466, Start Num: 14

Candidate Starts for KandZ_8:

(Start: 14 @4697 has 2 MA's), (64, 4859), (86, 4973), (89, 4988), (97, 5042), (99, 5051), (105, 5105), (110, 5138), (116, 5174), (117, 5186), (118, 5195), (119, 5201), (123, 5231), (126, 5246), (141, 5333), (148, 5375), (152, 5399), (169, 5498), (174, 5510), (176, 5528), (183, 5579), (189, 5600), (196, 5651), (197, 5660), (209, 5792), (218, 5852), (225, 5900), (236, 5951), (238, 5966), (268, 6086), (272, 6107), (279, 6143), (288, 6230), (292, 6257), (300, 6284), (335, 6437),

Gene: Karate_10 Start: 3083, Stop: 4543, Start Num: 16

Candidate Starts for Karate_10:

(Start: 16 @3083 has 64 MA's), (37, 3134), (45, 3152), (75, 3305), (77, 3311), (89, 3374), (94, 3413), (110, 3524), (118, 3581), (129, 3641), (146, 3755), (189, 3836), (200, 3920), (202, 3929), (209, 3998), (215, 4034), (221, 4082), (222, 4094), (232, 4136), (283, 4394), (310, 4529),

Gene: Kate_11 Start: 3136, Stop: 4596, Start Num: 16

Candidate Starts for Kate_11:

(Start: 16 @3136 has 64 MA's), (37, 3187), (45, 3205), (75, 3358), (77, 3364), (94, 3466), (110, 3577), (118, 3634), (129, 3694), (146, 3808), (189, 3889), (200, 3973), (202, 3982), (209, 4051), (215, 4087), (221, 4135), (222, 4147), (232, 4189), (283, 4447), (303, 4567), (310, 4582),

Gene: Konstantine_5 Start: 2389, Stop: 4098, Start Num: 26

Candidate Starts for Konstantine_5:

(Start: 26 @2389 has 9 MA's), (58, 2482), (60, 2488), (61, 2491), (68, 2551), (74, 2581), (80, 2599), (105, 2767), (106, 2770), (119, 2863), (121, 2881), (125, 2905), (127, 2911), (130, 2920), (140, 2992), (163, 3130), (174, 3151), (179, 3196), (196, 3292), (197, 3301), (203, 3340), (208, 3382), (209, 3409), (211, 3418), (212, 3421), (226, 3523), (242, 3616), (248, 3658), (251, 3676), (272, 3766), (274, 3781), (286, 3877), (290, 3916), (291, 3919), (300, 3952), (314, 3997), (317, 4006), (321, 4024),

Gene: Kors_11 Start: 2993, Stop: 4474, Start Num: 16

Candidate Starts for Kors_11:

(Start: 16 @2993 has 64 MA's), (Start: 27 @3020 has 1 MA's), (40, 3050), (47, 3068), (68, 3212), (75, 3242), (77, 3248), (99, 3374), (103, 3392), (108, 3440), (110, 3461), (123, 3554), (129, 3578), (189, 3773), (209, 3935), (213, 3953), (214, 3959), (215, 3971), (216, 3977), (221, 4019), (222, 4031), (240, 4127), (242, 4136), (279, 4292), (280, 4295), (285, 4337),

Gene: Krampus_11 Start: 3134, Stop: 4594, Start Num: 16

Candidate Starts for Krampus_11:

(Start: 16 @3134 has 64 MA's), (37, 3185), (45, 3203), (75, 3356), (77, 3362), (78, 3368), (89, 3425), (94, 3464), (110, 3575), (118, 3632), (129, 3692), (146, 3806), (189, 3887), (200, 3971), (202, 3980), (209, 4049), (215, 4085), (221, 4133), (222, 4145), (232, 4187), (283, 4445), (310, 4580),

Gene: Labelle_6 Start: 3029, Stop: 4702, Start Num: 27

Candidate Starts for Labelle_6:

(Start: 27 @3029 has 1 MA's), (Start: 29 @3035 has 2 MA's), (61, 3143), (75, 3233), (79, 3245), (80, 3248), (100, 3365), (105, 3413), (108, 3425), (118, 3503), (119, 3509), (121, 3527), (132, 3575), (148, 3683), (163, 3737), (170, 3749), (174, 3758), (180, 3809), (186, 3836), (191, 3860), (208, 3983), (209, 4010), (220, 4088), (236, 4184), (238, 4199), (245, 4247), (258, 4307), (271, 4364), (272, 4367), (294, 4526),

Gene: LadyJasley_13 Start: 5497, Stop: 7053, Start Num: 18

Candidate Starts for LadyJasley_13:

(Start: 18 @5497 has 1 MA's), (35, 5536), (83, 5740), (96, 5815), (111, 5926), (114, 5944), (135, 6064), (137, 6073), (138, 6082), (151, 6163), (206, 6340), (217, 6439), (235, 6520), (243, 6580), (262, 6667), (276, 6733), (277, 6736), (279, 6748), (291, 6862), (293, 6868), (295, 6871), (307, 6919), (309, 6925), (315, 6940), (323, 6970),

Gene: Lambo_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Lambo_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (82, 399), (89, 432), (102, 507), (108, 561), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (158, 882), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: LavAbarElk_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for LavAbarElk_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Leopard_17 Start: 10136, Stop: 11845, Start Num: 38

Candidate Starts for Leopard_17:

(28, 10121), (Start: 38 @10136 has 1 MA's), (Start: 43 @10145 has 9 MA's), (64, 10247), (68, 10283), (80, 10328), (102, 10451), (116, 10562), (119, 10589), (120, 10592), (129, 10643), (148, 10763), (152, 10787), (155, 10817), (156, 10826), (170, 10889), (174, 10898), (193, 11018), (209, 11150), (216, 11192), (228, 11273), (236, 11327), (247, 11396), (272, 11498), (279, 11534), (286, 11603), (289, 11633), (297, 11663), (313, 11711), (327, 11771), (328, 11780),

Gene: Lila22_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Lila22_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (72, 357), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: LilyPad_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for LilyPad_1:

(Start: 43 @1 has 9 MA's), (48, 25), (49, 28), (80, 178), (85, 202), (105, 343), (118, 433), (119, 439), (121, 457), (148, 613), (150, 625), (152, 637), (154, 658), (160, 688), (162, 703), (167, 712), (178, 766), (189, 823), (208, 958), (209, 985), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393), (289, 1423), (303, 1483),

Gene: LittleFella_1 Start: 1, Stop: 1548, Start Num: 34

Candidate Starts for LittleFella_1:

(Start: 34 @1 has 1 MA's), (64, 112), (68, 148), (76, 181), (85, 217), (89, 241), (102, 316), (105, 358), (108, 370), (118, 448), (119, 454), (121, 472), (124, 490), (148, 628), (157, 682), (159, 700), (160, 703), (162, 727), (164, 730), (175, 751), (177, 772), (180, 808), (182, 814), (187, 838), (189, 847), (190, 853), (201, 937), (208, 982), (209, 1009), (213, 1027), (216, 1051), (218, 1069), (220, 1087), (239, 1183), (272, 1336), (276, 1357), (279, 1372), (284, 1405),

Gene: LordBart_11 Start: 2966, Stop: 4447, Start Num: 16

Candidate Starts for LordBart_11:

(Start: 16 @2966 has 64 MA's), (Start: 27 @2993 has 1 MA's), (40, 3023), (47, 3041), (68, 3185), (75, 3215), (77, 3221), (99, 3347), (103, 3365), (107, 3407), (108, 3413), (110, 3434), (123, 3527), (129, 3551), (189, 3746), (196, 3797), (209, 3908), (213, 3926), (214, 3932), (215, 3944), (216, 3950), (221, 3992), (222, 4004), (233, 4052), (240, 4100), (242, 4109), (279, 4265), (280, 4268), (285, 4310),

Gene: LuckyLeo_1 Start: 33, Stop: 1556, Start Num: 32

Candidate Starts for LuckyLeo_1:

(Start: 32 @33 has 3 MA's), (Start: 39 @48 has 38 MA's), (64, 147), (82, 243), (89, 276), (102, 351), (123, 519), (126, 534), (133, 570), (134, 573), (139, 612), (144, 639), (148, 663), (152, 687), (158, 726), (160, 738), (177, 762), (179, 789), (181, 798), (186, 822), (196, 885), (197, 894), (208, 969), (212, 1008), (216, 1038), (272, 1335), (276, 1356), (286, 1434),

Gene: Madi_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for Madi_1:

(Start: 43 @1 has 9 MA's), (49, 28), (59, 67), (80, 178), (85, 202), (105, 343), (117, 424), (119, 439), (121, 457), (123, 469), (148, 613), (150, 625), (157, 667), (160, 688), (162, 703), (178, 766), (187, 814), (189, 823), (197, 883), (208, 958), (209, 985), (257, 1261), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393), (297, 1453), (303, 1483),

Gene: Madruga_5 Start: 2636, Stop: 4303, Start Num: 29

Candidate Starts for Madruga_5:

(Start: 29 @2636 has 2 MA's), (61, 2744), (75, 2834), (79, 2846), (80, 2849), (100, 2966), (105, 3014), (108, 3026), (118, 3104), (119, 3110), (121, 3128), (132, 3176), (148, 3284), (163, 3338), (170, 3350),

(174, 3359), (180, 3410), (186, 3437), (191, 3461), (208, 3584), (209, 3611), (217, 3665), (220, 3689), (236, 3785), (238, 3800), (245, 3848), (258, 3908), (271, 3965), (272, 3968), (294, 4127),

Gene: Megatron06_5 Start: 2668, Stop: 4377, Start Num: 25

Candidate Starts for Megatron06_5:

(4, 2566), (5, 2584), (11, 2629), (21, 2659), (24, 2665), (Start: 25 @2668 has 2 MA's), (58, 2761), (60, 2767), (61, 2770), (68, 2830), (74, 2860), (80, 2878), (94, 2965), (105, 3046), (106, 3049), (119, 3142), (121, 3160), (125, 3184), (127, 3190), (140, 3271), (163, 3409), (174, 3430), (179, 3475), (196, 3571), (197, 3580), (203, 3619), (208, 3661), (209, 3688), (211, 3697), (212, 3700), (226, 3802), (242, 3895), (248, 3937), (251, 3955), (272, 4045), (274, 4060), (286, 4156), (290, 4195), (291, 4198), (300, 4231), (314, 4276), (317, 4285), (321, 4303),

Gene: Mima20_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Mima20_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (256, 1428), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: MoiGyank_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for MoiGyank_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: MontyDev_5 Start: 1623, Stop: 3275, Start Num: 41

Candidate Starts for MontyDev_5:

(Start: 41 @1623 has 12 MA's), (65, 1731), (74, 1794), (82, 1827), (102, 1935), (105, 1974), (113, 2028), (116, 2043), (118, 2064), (119, 2070), (121, 2088), (148, 2244), (152, 2268), (165, 2298), (171, 2307), (181, 2370), (209, 2568), (213, 2586), (219, 2637), (242, 2760), (245, 2790), (256, 2844), (260, 2859), (267, 2886), (272, 2910), (279, 2946), (282, 2979), (286, 3015), (319, 3147), (338, 3258),

Gene: Mopey_8 Start: 4603, Stop: 6369, Start Num: 16

Candidate Starts for Mopey_8:

(Start: 16 @4603 has 64 MA's), (64, 4762), (86, 4876), (89, 4891), (97, 4945), (98, 4948), (99, 4954), (105, 5008), (110, 5041), (116, 5077), (117, 5089), (118, 5098), (119, 5104), (123, 5134), (126, 5149), (141, 5236), (148, 5278), (152, 5302), (169, 5401), (174, 5413), (176, 5431), (183, 5482), (189, 5503), (196, 5554), (197, 5563), (209, 5695), (218, 5755), (225, 5803), (236, 5854), (238, 5869), (268, 5989), (272, 6010), (279, 6046), (288, 6133), (292, 6160), (300, 6187), (335, 6340),

Gene: MortySmith_10 Start: 2836, Stop: 4296, Start Num: 16

Candidate Starts for MortySmith_10:

(Start: 16 @2836 has 64 MA's), (37, 2887), (45, 2905), (65, 2995), (75, 3058), (77, 3064), (89, 3127), (94, 3166), (110, 3277), (118, 3334), (129, 3394), (146, 3508), (189, 3589), (200, 3673), (202, 3682), (209, 3751), (215, 3787), (221, 3835), (222, 3847), (232, 3889), (283, 4147), (303, 4267), (310, 4282),

Gene: MrMiyagi_1 Start: 1, Stop: 1638, Start Num: 41

Candidate Starts for MrMiyagi_1:

(Start: 41 @1 has 12 MA's), (46, 13), (58, 73), (65, 109), (71, 157), (99, 298), (102, 310), (105, 352), (109, 379), (116, 421), (139, 571), (148, 622), (150, 634), (152, 646), (192, 802), (211, 955), (216, 988), (219, 1015), (243, 1147), (260, 1234), (269, 1255), (271, 1267), (279, 1306), (283, 1342), (289, 1405), (302, 1450), (327, 1549), (329, 1561), (330, 1591),

Gene: NarutoRun_11 Start: 3139, Stop: 4599, Start Num: 16

Candidate Starts for NarutoRun_11:

(Start: 16 @3139 has 64 MA's), (37, 3190), (45, 3208), (75, 3361), (77, 3367), (94, 3469), (110, 3580), (118, 3637), (129, 3697), (146, 3811), (189, 3892), (196, 3943), (200, 3976), (202, 3985), (209, 4054), (215, 4090), (221, 4138), (222, 4150), (232, 4192), (283, 4450), (303, 4570), (310, 4585),

Gene: Nellie_10 Start: 4571, Stop: 6154, Start Num: 20

Candidate Starts for Nellie_10:

(Start: 20 @4571 has 6 MA's), (35, 4604), (42, 4616), (52, 4655), (62, 4697), (73, 4775), (83, 4808), (96, 4883), (111, 4994), (114, 5012), (135, 5132), (143, 5183), (151, 5231), (195, 5333), (206, 5420), (217, 5519), (262, 5756), (279, 5837), (280, 5840), (283, 5876), (304, 6005), (322, 6059), (325, 6071), (334, 6137), (336, 6146),

Gene: Neptune_11 Start: 3104, Stop: 4564, Start Num: 16

Candidate Starts for Neptune_11:

(Start: 16 @3104 has 64 MA's), (37, 3155), (45, 3173), (75, 3326), (77, 3332), (94, 3434), (110, 3545), (118, 3602), (129, 3662), (146, 3776), (189, 3857), (200, 3941), (202, 3950), (209, 4019), (215, 4055), (221, 4103), (222, 4115), (232, 4157), (283, 4415), (303, 4535), (310, 4550),

Gene: Nilo_5 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Nilo_5:

(Start: 41 @1624 has 12 MA's), (65, 1732), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (319, 3148), (338, 3259),

Gene: Nish23_4 Start: 2133, Stop: 3842, Start Num: 26

Candidate Starts for Nish23_4:

(12, 2094), (Start: 17 @2112 has 2 MA's), (Start: 26 @2133 has 9 MA's), (58, 2226), (60, 2232), (61, 2235), (68, 2295), (74, 2325), (80, 2343), (94, 2430), (105, 2511), (106, 2514), (119, 2607), (121, 2625), (125, 2649), (127, 2655), (140, 2736), (163, 2874), (174, 2895), (179, 2940), (196, 3036), (197, 3045), (203, 3084), (208, 3126), (209, 3153), (211, 3162), (212, 3165), (226, 3267), (242, 3360), (248, 3402), (251, 3420), (272, 3510), (274, 3525), (286, 3621), (290, 3660), (291, 3663), (300, 3696), (314, 3741), (317, 3750), (321, 3768),

Gene: NorManre_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for NorManre_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (256, 1428), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: Nova_8 Start: 5024, Stop: 6793, Start Num: 14

Candidate Starts for Nova_8:

(Start: 14 @5024 has 2 MA's), (64, 5186), (71, 5237), (86, 5300), (89, 5315), (97, 5369), (98, 5372), (99, 5378), (105, 5432), (110, 5465), (116, 5501), (117, 5513), (118, 5522), (119, 5528), (123, 5558), (126, 5573), (141, 5660), (148, 5702), (152, 5726), (169, 5825), (174, 5837), (176, 5855), (183, 5906), (189, 5927), (196, 5978), (197, 5987), (209, 6119), (218, 6179), (225, 6227), (236, 6278), (238, 6293), (268, 6413), (272, 6434), (279, 6470), (288, 6557), (292, 6584), (300, 6611), (335, 6764),

Gene: NovaSharks_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for NovaSharks_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196,

1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Oaker_5 Start: 2389, Stop: 4098, Start Num: 26

Candidate Starts for Oaker_5:

(Start: 26 @2389 has 9 MA's), (58, 2482), (60, 2488), (61, 2491), (68, 2551), (74, 2581), (80, 2599), (105, 2767), (106, 2770), (119, 2863), (121, 2881), (125, 2905), (127, 2911), (130, 2920), (140, 2992), (163, 3130), (174, 3151), (179, 3196), (196, 3292), (197, 3301), (203, 3340), (208, 3382), (209, 3409), (211, 3418), (212, 3421), (226, 3523), (242, 3616), (248, 3658), (251, 3676), (272, 3766), (274, 3781), (286, 3877), (290, 3916), (291, 3919), (300, 3952), (314, 3997), (317, 4006), (321, 4024),

Gene: OhDear_11 Start: 3133, Stop: 4593, Start Num: 16

Candidate Starts for OhDear_11:

(Start: 16 @3133 has 64 MA's), (37, 3184), (45, 3202), (75, 3355), (77, 3361), (78, 3367), (89, 3424), (94, 3463), (110, 3574), (118, 3631), (129, 3691), (146, 3805), (189, 3886), (200, 3970), (202, 3979), (209, 4048), (215, 4084), (221, 4132), (222, 4144), (232, 4186), (283, 4444), (303, 4564), (310, 4579),

Gene: Onyinye_18 Start: 10008, Stop: 11726, Start Num: 33

Candidate Starts for Onyinye_18:

(2, 9879), (10, 9936), (30, 10002), (Start: 33 @10008 has 2 MA's), (60, 10101), (61, 10104), (64, 10128), (68, 10164), (80, 10209), (102, 10332), (116, 10443), (119, 10470), (120, 10473), (129, 10524), (148, 10644), (152, 10668), (155, 10698), (156, 10707), (170, 10770), (174, 10779), (193, 10899), (209, 11031), (216, 11073), (228, 11154), (236, 11208), (247, 11277), (272, 11379), (279, 11415), (286, 11484), (289, 11514), (297, 11544), (313, 11592), (327, 11652), (328, 11661),

Gene: OtterstedtS21_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for OtterstedtS21_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: OverHedge_11 Start: 3101, Stop: 4561, Start Num: 16

Candidate Starts for OverHedge_11:

(Start: 16 @3101 has 64 MA's), (37, 3152), (45, 3170), (75, 3323), (77, 3329), (94, 3431), (110, 3542), (118, 3599), (129, 3659), (146, 3773), (189, 3854), (200, 3938), (202, 3947), (209, 4016), (215, 4052), (221, 4100), (222, 4112), (232, 4154), (280, 4376), (283, 4412), (303, 4532), (310, 4547),

Gene: PBI1_8 Start: 4540, Stop: 6306, Start Num: 16

Candidate Starts for PBI1_8:

(Start: 16 @4540 has 64 MA's), (64, 4699), (86, 4813), (89, 4828), (97, 4882), (98, 4885), (99, 4891), (105, 4945), (110, 4978), (116, 5014), (117, 5026), (118, 5035), (119, 5041), (123, 5071), (126, 5086), (141, 5173), (148, 5215), (152, 5239), (169, 5338), (174, 5350), (176, 5368), (183, 5419), (189, 5440), (196, 5491), (197, 5500), (209, 5632), (218, 5692), (225, 5740), (236, 5791), (238, 5806), (268, 5926), (272, 5947), (279, 5983), (288, 6070), (292, 6097), (300, 6124), (335, 6277),

Gene: PLOT_8 Start: 4612, Stop: 6378, Start Num: 16

Candidate Starts for PLOT_8:

(Start: 16 @4612 has 64 MA's), (64, 4771), (86, 4885), (89, 4900), (97, 4954), (99, 4963), (105, 5017), (110, 5050), (116, 5086), (117, 5098), (118, 5107), (119, 5113), (123, 5143), (126, 5158), (141, 5245), (148, 5287), (152, 5311), (169, 5410), (174, 5422), (176, 5440), (183, 5491), (189, 5512), (196, 5563), (197, 5572), (209, 5704), (218, 5764), (225, 5812), (236, 5863), (238, 5878), (268, 5998), (272, 6019), (279, 6055), (288, 6142), (292, 6169), (300, 6196), (335, 6349),

Gene: Papyrus_5 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Papyrus_5:

(Start: 41 @1624 has 12 MA's), (65, 1732), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (289, 3046), (319, 3148), (338, 3259),

Gene: ParvusTarda_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for ParvusTarda_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (180, 951), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Patience_6 Start: 3035, Stop: 4702, Start Num: 29

Candidate Starts for Patience_6:

(Start: 27 @3029 has 1 MA's), (Start: 29 @3035 has 2 MA's), (61, 3143), (75, 3233), (79, 3245), (80, 3248), (100, 3365), (105, 3413), (108, 3425), (118, 3503), (119, 3509), (121, 3527), (132, 3575), (148, 3683), (163, 3737), (170, 3749), (173, 3755), (174, 3758), (180, 3809), (186, 3836), (191, 3860), (208, 3983), (209, 4010), (220, 4088), (226, 4124), (236, 4184), (238, 4199), (258, 4307), (271, 4364), (272, 4367), (294, 4526), (331, 4697),

Gene: Patos_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Patos_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Penelope2018_8 Start: 4603, Stop: 6369, Start Num: 16

Candidate Starts for Penelope2018_8:

(Start: 16 @4603 has 64 MA's), (64, 4762), (86, 4876), (89, 4891), (97, 4945), (98, 4948), (99, 4954), (105, 5008), (110, 5041), (116, 5077), (117, 5089), (118, 5098), (119, 5104), (123, 5134), (126, 5149), (141, 5236), (148, 5278), (152, 5302), (169, 5401), (174, 5413), (176, 5431), (183, 5482), (189, 5503), (196, 5554), (197, 5563), (209, 5695), (218, 5755), (225, 5803), (236, 5854), (238, 5869), (268, 5989), (272, 6010), (279, 6046), (288, 6133), (292, 6160), (300, 6187), (335, 6340),

Gene: Phalaborwa_8 Start: 4642, Stop: 6411, Start Num: 14

Candidate Starts for Phalaborwa_8:

(Start: 14 @4642 has 2 MA's), (64, 4804), (86, 4918), (89, 4933), (97, 4987), (98, 4990), (99, 4996), (105, 5050), (110, 5083), (116, 5119), (117, 5131), (118, 5140), (119, 5146), (123, 5176), (126, 5191), (141, 5278), (148, 5320), (152, 5344), (169, 5443), (174, 5455), (176, 5473), (183, 5524), (189, 5545), (197, 5605), (209, 5737), (218, 5797), (225, 5845), (236, 5896), (252, 5992), (268, 6031), (272, 6052), (279, 6088), (288, 6175), (292, 6202), (300, 6229), (335, 6382),

Gene: Pharpay_11 Start: 3149, Stop: 4609, Start Num: 16

Candidate Starts for Pharpay_11:

(Start: 16 @3149 has 64 MA's), (37, 3200), (45, 3218), (75, 3371), (77, 3377), (89, 3440), (94, 3479), (110, 3590), (118, 3647), (129, 3707), (146, 3821), (189, 3902), (200, 3986), (202, 3995), (209, 4064), (215, 4100), (221, 4148), (222, 4160), (232, 4202), (283, 4460), (303, 4580), (310, 4595),

Gene: Phreeze_4 Start: 2133, Stop: 3842, Start Num: 26

Candidate Starts for Phreeze_4:

(12, 2094), (Start: 17 @2112 has 2 MA's), (Start: 26 @2133 has 9 MA's), (58, 2226), (60, 2232), (61, 2235), (68, 2295), (74, 2325), (80, 2343), (105, 2511), (106, 2514), (119, 2607), (121, 2625), (125, 2649), (127, 2655), (140, 2736), (163, 2874), (174, 2895), (179, 2940), (196, 3036), (197, 3045), (203,

3084), (208, 3126), (209, 3153), (211, 3162), (212, 3165), (226, 3267), (242, 3360), (248, 3402), (251, 3420), (272, 3510), (274, 3525), (286, 3621), (290, 3660), (291, 3663), (300, 3696), (314, 3741), (317, 3750), (321, 3768),

Gene: Phroglets_9 Start: 4845, Stop: 6437, Start Num: 16

Candidate Starts for Phroglets_9:

(Start: 16 @4845 has 64 MA's), (37, 4893), (46, 4914), (48, 4929), (52, 4941), (54, 4947), (59, 4974), (70, 5049), (92, 5163), (104, 5247), (111, 5289), (128, 5388), (130, 5394), (135, 5427), (138, 5445), (149, 5505), (185, 5568), (206, 5697), (221, 5826), (237, 5910), (241, 5937), (256, 6024), (262, 6045), (279, 6123), (281, 6132), (289, 6225), (295, 6246), (308, 6300), (312, 6309), (326, 6369), (331, 6414),

Gene: PhunaPhoke_11 Start: 3122, Stop: 4582, Start Num: 16

Candidate Starts for PhunaPhoke_11:

(Start: 16 @3122 has 64 MA's), (37, 3173), (45, 3191), (65, 3281), (75, 3344), (77, 3350), (89, 3413), (94, 3452), (110, 3563), (118, 3620), (129, 3680), (146, 3794), (189, 3875), (200, 3959), (202, 3968), (209, 4037), (215, 4073), (221, 4121), (222, 4133), (232, 4175), (283, 4433), (303, 4553), (310, 4568),

Gene: PigHeaded_11 Start: 5365, Stop: 6909, Start Num: 18

Candidate Starts for PigHeaded_11:

(Start: 18 @5365 has 1 MA's), (37, 5407), (42, 5416), (52, 5455), (69, 5560), (83, 5608), (111, 5794), (114, 5812), (135, 5932), (137, 5941), (138, 5950), (151, 6031), (194, 6127), (195, 6133), (200, 6169), (206, 6208), (217, 6307), (262, 6535), (279, 6616), (291, 6730), (293, 6736), (295, 6739), (307, 6787), (309, 6790),

Gene: Potty_11 Start: 3127, Stop: 4587, Start Num: 16

Candidate Starts for Potty_11:

(Start: 16 @3127 has 64 MA's), (37, 3178), (45, 3196), (75, 3349), (77, 3355), (89, 3418), (94, 3457), (110, 3568), (118, 3625), (129, 3685), (146, 3799), (189, 3880), (200, 3964), (202, 3973), (209, 4042), (215, 4078), (221, 4126), (222, 4138), (232, 4180), (283, 4438), (310, 4573),

Gene: Poultruss_10 Start: 2901, Stop: 4361, Start Num: 16

Candidate Starts for Poultruss_10:

(Start: 16 @2901 has 64 MA's), (37, 2952), (45, 2970), (75, 3123), (77, 3129), (78, 3135), (89, 3192), (94, 3231), (99, 3255), (110, 3342), (118, 3399), (122, 3432), (129, 3459), (146, 3573), (189, 3654), (200, 3738), (202, 3747), (209, 3816), (215, 3852), (221, 3900), (222, 3912), (232, 3954), (283, 4212), (303, 4332), (310, 4347),

Gene: Prager_8 Start: 4612, Stop: 6378, Start Num: 16

Candidate Starts for Prager_8:

(Start: 16 @4612 has 64 MA's), (64, 4771), (86, 4885), (89, 4900), (97, 4954), (98, 4957), (99, 4963), (105, 5017), (110, 5050), (116, 5086), (117, 5098), (118, 5107), (119, 5113), (123, 5143), (126, 5158), (141, 5245), (148, 5287), (152, 5311), (169, 5410), (174, 5422), (176, 5440), (183, 5491), (189, 5512), (196, 5563), (197, 5572), (209, 5704), (218, 5764), (225, 5812), (236, 5863), (238, 5878), (268, 5998), (272, 6019), (279, 6055), (288, 6142), (292, 6169), (300, 6196), (335, 6349),

Gene: Predator_7 Start: 3130, Stop: 4839, Start Num: 26

Candidate Starts for Predator_7:

(Start: 26 @3130 has 9 MA's), (50, 3190), (58, 3223), (61, 3232), (68, 3292), (74, 3322), (80, 3340), (81, 3352), (105, 3508), (121, 3622), (125, 3646), (163, 3871), (166, 3877), (172, 3886), (174, 3892), (197, 4042), (203, 4081), (211, 4159), (223, 4249), (234, 4303), (248, 4399), (251, 4417), (271, 4504), (274, 4522), (286, 4618), (290, 4657), (291, 4660), (300, 4693), (314, 4738), (317, 4747), (321, 4765),

Gene: Puissant_5 Start: 2482, Stop: 4191, Start Num: 26

Candidate Starts for Puissant_5:

(Start: 26 @2482 has 9 MA's), (35, 2506), (58, 2575), (60, 2581), (61, 2584), (68, 2644), (80, 2692), (105, 2860), (106, 2863), (121, 2974), (125, 2998), (127, 3004), (130, 3013), (140, 3085), (163, 3223), (174, 3244), (179, 3289), (196, 3385), (197, 3394), (203, 3433), (207, 3466), (208, 3475), (209, 3502), (211, 3511), (212, 3514), (234, 3655), (236, 3676), (242, 3709), (249, 3757), (251, 3769), (263, 3817), (271, 3856), (274, 3874), (286, 3970), (290, 4009), (291, 4012), (300, 4045), (311, 4081), (317, 4099), (321, 4117),

Gene: Pywacket_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Pywacket_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Rachella_11 Start: 3133, Stop: 4593, Start Num: 16

Candidate Starts for Rachella_11:

(Start: 16 @3133 has 64 MA's), (37, 3184), (45, 3202), (75, 3355), (77, 3361), (94, 3463), (110, 3574), (118, 3631), (129, 3691), (146, 3805), (189, 3886), (200, 3970), (202, 3979), (209, 4048), (215, 4084), (221, 4132), (222, 4144), (232, 4186), (283, 4444), (303, 4564), (310, 4579),

Gene: Ranch_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Ranch_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (256, 1428), (264, 1458), (276, 1512), (278, 1518), (286, 1590),

Gene: RazorC_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for RazorC_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Riduram_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Riduram_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Rie18_11 Start: 3036, Stop: 4496, Start Num: 16

Candidate Starts for Rie18_11:

(Start: 16 @3036 has 64 MA's), (37, 3087), (45, 3105), (65, 3195), (75, 3258), (77, 3264), (89, 3327), (94, 3366), (110, 3477), (118, 3534), (123, 3570), (129, 3594), (146, 3708), (189, 3789), (197, 3849), (200, 3873), (202, 3882), (209, 3951), (215, 3987), (221, 4035), (222, 4047), (232, 4089), (244, 4179), (283, 4347), (310, 4482),

Gene: RikSengupta_11 Start: 3063, Stop: 4544, Start Num: 16

Candidate Starts for RikSengupta_11:

(Start: 16 @3063 has 64 MA's), (Start: 27 @3090 has 1 MA's), (40, 3120), (47, 3138), (68, 3282), (75, 3312), (77, 3318), (99, 3444), (103, 3462), (108, 3510), (110, 3531), (123, 3624), (129, 3648), (189, 3843), (196, 3894), (209, 4005), (213, 4023), (214, 4029), (215, 4041), (216, 4047), (221, 4089), (222, 4101), (240, 4197), (279, 4362), (280, 4365), (285, 4407),

Gene: Riparian_5 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Riparian_5:

(Start: 41 @1624 has 12 MA's), (65, 1732), (72, 1786), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (319, 3148), (338, 3259),

Gene: Rope_5 Start: 1623, Stop: 3275, Start Num: 41

Candidate Starts for Rope_5:

(Start: 41 @1623 has 12 MA's), (65, 1731), (74, 1794), (82, 1827), (102, 1935), (105, 1974), (113, 2028), (116, 2043), (118, 2064), (119, 2070), (121, 2088), (148, 2244), (152, 2268), (165, 2298), (181, 2370), (209, 2568), (213, 2586), (219, 2637), (242, 2760), (245, 2790), (256, 2844), (260, 2859), (267, 2886), (272, 2910), (279, 2946), (282, 2979), (286, 3015), (289, 3045), (319, 3147), (338, 3258),

Gene: Rota_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Rota_2:

(15, 144), (Start: 39 @201 has 38 MA's), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (256, 1428), (276, 1512), (278, 1518), (286, 1590),

Gene: Rukungu_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Rukungu_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Rumi_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Rumi_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Sadboi_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Sadboi_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Sampudon_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Sampudon_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Send513_4 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Send513_4:

(Start: 41 @1624 has 12 MA's), (65, 1732), (72, 1786), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (319, 3148), (338, 3259),

Gene: Shocker_17 Start: 6811, Stop: 8391, Start Num: 16

Candidate Starts for Shocker_17:

(Start: 16 @6811 has 64 MA's), (37, 6862), (40, 6868), (63, 6970), (69, 7015), (70, 7018), (87, 7096), (89, 7105), (90, 7111), (91, 7129), (93, 7141), (101, 7177), (112, 7273), (117, 7303), (127, 7357), (128, 7360), (131, 7369), (147, 7474), (188, 7555), (194, 7597), (199, 7633), (208, 7696), (219, 7792), (222, 7819), (227, 7840), (231, 7852), (253, 7975), (254, 7978), (255, 7981), (259, 7996), (273, 8056), (275, 8074), (295, 8215), (319, 8302), (326, 8332), (333, 8386),

Gene: Shrew_46 Start: 20151, Stop: 21551, Start Num: 32

Candidate Starts for Shrew_46:

(13, 20106), (Start: 32 @20151 has 3 MA's), (67, 20301), (86, 20361), (105, 20493), (118, 20580), (119, 20586), (133, 20667), (134, 20670), (136, 20679), (198, 20907), (213, 21024), (216, 21051), (222, 21105), (224, 21111), (231, 21138), (250, 21255), (279, 21360), (286, 21423), (287, 21429), (296, 21477), (306, 21516),

Gene: Sienna_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for Sienna_1:

(Start: 43 @1 has 9 MA's), (49, 28), (59, 67), (80, 178), (85, 202), (105, 343), (117, 424), (119, 439), (121, 457), (123, 469), (148, 613), (150, 625), (160, 688), (162, 703), (167, 712), (178, 766), (187, 814), (189, 823), (197, 883), (208, 958), (209, 985), (257, 1261), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393), (297, 1453), (303, 1483),

Gene: SilentWarrior_10 Start: 2869, Stop: 4329, Start Num: 16

Candidate Starts for SilentWarrior_10:

(Start: 16 @2869 has 64 MA's), (37, 2920), (45, 2938), (65, 3028), (75, 3091), (77, 3097), (89, 3160), (94, 3199), (110, 3310), (118, 3367), (129, 3427), (146, 3541), (189, 3622), (200, 3706), (202, 3715), (209, 3784), (215, 3820), (221, 3868), (222, 3880), (232, 3922), (283, 4180), (303, 4300), (310, 4315),

Gene: SirHarley_7 Start: 4532, Stop: 6298, Start Num: 16

Candidate Starts for SirHarley_7:

(Start: 16 @4532 has 64 MA's), (64, 4691), (86, 4805), (89, 4820), (97, 4874), (98, 4877), (99, 4883), (105, 4937), (110, 4970), (116, 5006), (117, 5018), (118, 5027), (119, 5033), (123, 5063), (126, 5078), (141, 5165), (148, 5207), (152, 5231), (169, 5330), (174, 5342), (176, 5360), (183, 5411), (189, 5432), (196, 5483), (197, 5492), (209, 5624), (218, 5684), (225, 5732), (236, 5783), (238, 5798), (268, 5918), (272, 5939), (279, 5975), (288, 6062), (292, 6089), (300, 6116), (335, 6269),

Gene: Snakehole_12 Start: 2957, Stop: 4417, Start Num: 16

Candidate Starts for Snakehole_12:

(Start: 16 @2957 has 64 MA's), (37, 3008), (45, 3026), (75, 3179), (77, 3185), (89, 3248), (94, 3287), (110, 3398), (118, 3455), (129, 3515), (146, 3629), (152, 3659), (189, 3710), (200, 3794), (202, 3803), (209, 3872), (215, 3908), (221, 3956), (232, 4010), (280, 4232), (283, 4268), (310, 4403),

Gene: Sparcetus_11 Start: 2899, Stop: 4380, Start Num: 16

Candidate Starts for Sparcetus_11:

(Start: 16 @2899 has 64 MA's), (Start: 27 @2926 has 1 MA's), (40, 2956), (47, 2974), (68, 3118), (75, 3148), (77, 3154), (99, 3280), (103, 3298), (108, 3346), (110, 3367), (123, 3460), (129, 3484), (189, 3679), (209, 3841), (213, 3859), (214, 3865), (215, 3877), (216, 3883), (221, 3925), (222, 3937), (233, 3985), (240, 4033), (242, 4042), (279, 4198), (280, 4201), (285, 4243),

Gene: Stormer_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Stormer_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: SuperSonics_7 Start: 2774, Stop: 4441, Start Num: 29

Candidate Starts for SuperSonics_7:

(6, 2690), (8, 2699), (Start: 29 @2774 has 2 MA's), (61, 2882), (75, 2972), (79, 2984), (80, 2987), (100, 3104), (105, 3152), (108, 3164), (118, 3242), (119, 3248), (121, 3266), (132, 3314), (140, 3377), (148, 3422), (163, 3476), (170, 3488), (174, 3497), (180, 3548), (186, 3575), (191, 3599), (208, 3722), (209, 3749), (220, 3827), (236, 3923), (238, 3938), (245, 3986), (258, 4046), (271, 4103), (272, 4106), (294, 4265),

Gene: SuperheroCarly_8 Start: 4465, Stop: 6231, Start Num: 16

Candidate Starts for SuperheroCarly_8:

(Start: 16 @4465 has 64 MA's), (64, 4624), (86, 4738), (89, 4753), (97, 4807), (98, 4810), (99, 4816), (105, 4870), (110, 4903), (116, 4939), (117, 4951), (118, 4960), (119, 4966), (123, 4996), (126, 5011), (141, 5098), (148, 5140), (152, 5164), (169, 5263), (174, 5275), (176, 5293), (183, 5344), (189, 5365), (196, 5416), (197, 5425), (209, 5557), (218, 5617), (225, 5665), (236, 5716), (238, 5731), (268, 5851), (272, 5872), (279, 5908), (288, 5995), (292, 6022), (300, 6049), (335, 6202),

Gene: Suzy_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for Suzy_1:

(Start: 43 @1 has 9 MA's), (49, 28), (59, 67), (80, 178), (85, 202), (105, 343), (119, 439), (121, 457), (148, 613), (150, 625), (160, 688), (162, 703), (167, 712), (178, 766), (184, 805), (187, 814), (189, 823), (197, 883), (208, 958), (209, 985), (225, 1096), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393),

Gene: Tedro_11 Start: 3134, Stop: 4594, Start Num: 16

Candidate Starts for Tedro_11:

(Start: 16 @3134 has 64 MA's), (37, 3185), (45, 3203), (75, 3356), (77, 3362), (94, 3464), (110, 3575), (118, 3632), (129, 3692), (146, 3806), (189, 3887), (196, 3938), (200, 3971), (202, 3980), (209, 4049), (215, 4085), (221, 4133), (222, 4145), (232, 4187), (283, 4445), (303, 4565), (310, 4580),

Gene: Terapin_1 Start: 1, Stop: 1509, Start Num: 43

Candidate Starts for Terapin_1:

(Start: 43 @1 has 9 MA's), (49, 28), (59, 67), (80, 178), (85, 202), (105, 343), (119, 439), (121, 457), (148, 613), (150, 625), (160, 688), (162, 703), (167, 712), (178, 766), (187, 814), (189, 823), (197, 883), (208, 958), (209, 985), (257, 1261), (272, 1294), (276, 1315), (279, 1330), (284, 1363), (286, 1393), (297, 1453), (303, 1483),

Gene: Thoth_8 Start: 4600, Stop: 6366, Start Num: 16

Candidate Starts for Thoth_8:

(Start: 16 @4600 has 64 MA's), (64, 4759), (86, 4873), (89, 4888), (97, 4942), (98, 4945), (99, 4951), (105, 5005), (110, 5038), (116, 5074), (117, 5086), (118, 5095), (119, 5101), (123, 5131), (126, 5146), (141, 5233), (148, 5275), (152, 5299), (169, 5398), (174, 5410), (176, 5428), (183, 5479), (189, 5500), (196, 5551), (197, 5560), (209, 5692), (218, 5752), (225, 5800), (236, 5851), (238, 5866), (268, 5986), (272, 6007), (279, 6043), (288, 6130), (292, 6157), (300, 6184), (335, 6337),

Gene: Thumb_4 Start: 2133, Stop: 3842, Start Num: 26

Candidate Starts for Thumb_4:

(12, 2094), (Start: 17 @2112 has 2 MA's), (Start: 26 @2133 has 9 MA's), (58, 2226), (60, 2232), (61, 2235), (68, 2295), (74, 2325), (80, 2343), (105, 2511), (106, 2514), (119, 2607), (121, 2625), (125, 2649), (127, 2655), (140, 2736), (163, 2874), (174, 2895), (179, 2940), (196, 3036), (197, 3045), (203, 3084), (208, 3126), (209, 3153), (211, 3162), (212, 3165), (226, 3267), (242, 3360), (248, 3402), (251, 3420), (272, 3510), (274, 3525), (286, 3621), (290, 3660), (291, 3663), (300, 3696), (314, 3741), (317, 3750), (321, 3768),

Gene: Tiggy93_11 Start: 3133, Stop: 4593, Start Num: 16

Candidate Starts for Tiggy93_11:

(Start: 16 @3133 has 64 MA's), (37, 3184), (45, 3202), (75, 3355), (77, 3361), (94, 3463), (110, 3574), (118, 3631), (129, 3691), (146, 3805), (189, 3886), (196, 3937), (200, 3970), (202, 3979), (209, 4048), (215, 4084), (221, 4132), (222, 4144), (232, 4186), (283, 4444), (303, 4564), (310, 4579),

Gene: Tillicus_2 Start: 201, Stop: 1709, Start Num: 39

Candidate Starts for Tillicus_2:

(15, 144), (Start: 32 @186 has 3 MA's), (Start: 39 @201 has 38 MA's), (64, 300), (82, 396), (89, 429), (102, 504), (123, 672), (133, 723), (134, 726), (139, 765), (144, 792), (148, 816), (152, 840), (158, 879), (160, 891), (177, 915), (179, 942), (181, 951), (186, 975), (196, 1038), (197, 1047), (208, 1122), (212, 1161), (216, 1191), (272, 1488), (276, 1509), (286, 1587),

Gene: TinyMiny_11 Start: 2897, Stop: 4378, Start Num: 16

Candidate Starts for TinyMiny_11:

(Start: 16 @2897 has 64 MA's), (Start: 27 @2924 has 1 MA's), (40, 2954), (47, 2972), (68, 3116), (75, 3146), (77, 3152), (99, 3278), (103, 3296), (108, 3344), (110, 3365), (123, 3458), (129, 3482), (189, 3677), (209, 3839), (213, 3857), (214, 3863), (215, 3875), (216, 3881), (221, 3923), (222, 3935), (240, 4031), (242, 4040), (279, 4196), (280, 4199), (285, 4241),

Gene: Tongui_10 Start: 2960, Stop: 4420, Start Num: 16

Candidate Starts for Tongui_10:

(Start: 16 @2960 has 64 MA's), (37, 3011), (45, 3029), (75, 3182), (77, 3188), (94, 3290), (110, 3401), (118, 3458), (129, 3518), (146, 3632), (189, 3713), (202, 3806), (209, 3875), (215, 3911), (221, 3959), (222, 3971), (232, 4013), (275, 4214), (278, 4223), (283, 4271), (286, 4304), (310, 4406),

Gene: Triscuit_34 Start: 15622, Stop: 17043, Start Num: 19

Candidate Starts for Triscuit_34:

(Start: 19 @15622 has 2 MA's), (23, 15634), (64, 15766), (86, 15859), (105, 15991), (118, 16078), (126, 16129), (134, 16168), (136, 16177), (148, 16267), (184, 16324), (194, 16384), (197, 16402), (198, 16405), (216, 16549), (222, 16603), (229, 16621), (242, 16696), (248, 16738), (249, 16744), (270, 16804), (279, 16852), (286, 16915), (298, 16978), (313, 17023),

Gene: Troll4_8 Start: 4604, Stop: 6370, Start Num: 16

Candidate Starts for Troll4_8:

(Start: 16 @4604 has 64 MA's), (64, 4763), (86, 4877), (89, 4892), (97, 4946), (98, 4949), (99, 4955), (105, 5009), (110, 5042), (116, 5078), (117, 5090), (118, 5099), (119, 5105), (123, 5135), (126, 5150), (141, 5237), (148, 5279), (152, 5303), (169, 5402), (174, 5414), (176, 5432), (183, 5483), (189, 5504), (196, 5555), (197, 5564), (209, 5696), (218, 5756), (225, 5804), (236, 5855), (238, 5870), (268, 5990), (272, 6011), (279, 6047), (288, 6134), (292, 6161), (300, 6188), (335, 6341),

Gene: Visconti_8 Start: 4613, Stop: 6379, Start Num: 16

Candidate Starts for Visconti_8:

(Start: 16 @4613 has 64 MA's), (64, 4772), (86, 4886), (89, 4901), (97, 4955), (98, 4958), (99, 4964), (105, 5018), (110, 5051), (116, 5087), (117, 5099), (118, 5108), (119, 5114), (123, 5144), (126, 5159), (141, 5246), (148, 5288), (152, 5312), (169, 5411), (174, 5423), (176, 5441), (183, 5492), (189, 5513), (196, 5564), (197, 5573), (209, 5705), (218, 5765), (225, 5813), (236, 5864), (238, 5879), (268, 5999), (272, 6020), (279, 6056), (288, 6143), (292, 6170), (300, 6197), (335, 6350),

Gene: WaldoWhy_8 Start: 4606, Stop: 6372, Start Num: 16

Candidate Starts for WaldoWhy_8:

(Start: 16 @4606 has 64 MA's), (64, 4765), (86, 4879), (89, 4894), (97, 4948), (98, 4951), (99, 4957), (105, 5011), (110, 5044), (116, 5080), (117, 5092), (118, 5101), (119, 5107), (123, 5137), (126, 5152),

(141, 5239), (148, 5281), (152, 5305), (169, 5404), (174, 5416), (176, 5434), (183, 5485), (189, 5506), (196, 5557), (197, 5566), (209, 5698), (218, 5758), (225, 5806), (236, 5857), (238, 5872), (268, 5992), (271, 6010), (272, 6013), (279, 6049), (288, 6136), (292, 6163), (300, 6190), (335, 6343),

Gene: Weiss13_5 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Weiss13_5:

(Start: 41 @1624 has 12 MA's), (65, 1732), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (319, 3148), (338, 3259),

Gene: Wojtek_2 Start: 201, Stop: 1709, Start Num: 39

Candidate Starts for Wojtek_2:

(15, 144), (Start: 39 @201 has 38 MA's), (64, 300), (68, 336), (82, 396), (89, 429), (100, 498), (102, 504), (108, 558), (110, 579), (123, 672), (126, 687), (133, 723), (134, 726), (139, 765), (144, 792), (148, 816), (152, 840), (158, 879), (160, 891), (177, 915), (179, 942), (181, 951), (186, 975), (196, 1038), (208, 1122), (212, 1161), (215, 1185), (216, 1191), (272, 1488), (276, 1509), (286, 1587),

Gene: Wollypog_1 Start: 1, Stop: 1452, Start Num: 32

Candidate Starts for Wollypog_1:

(Start: 32 @1 has 3 MA's), (55, 67), (72, 166), (100, 307), (105, 361), (108, 373), (110, 394), (123, 487), (129, 511), (146, 625), (148, 631), (186, 694), (189, 706), (201, 796), (209, 868), (219, 937), (222, 964), (240, 1051), (243, 1069), (273, 1186),

Gene: Xenia2_2 Start: 204, Stop: 1715, Start Num: 39

Candidate Starts for Xenia2_2:

(Start: 39 @204 has 38 MA's), (72, 357), (75, 369), (89, 432), (95, 474), (100, 501), (102, 507), (117, 630), (118, 639), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (179, 945), (187, 981), (197, 1050), (208, 1125), (209, 1152), (212, 1164), (213, 1170), (219, 1221), (256, 1428), (261, 1446), (272, 1494), (276, 1515), (286, 1593), (289, 1623),

Gene: Yelo_4 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Yelo_4:

(Start: 41 @1624 has 12 MA's), (65, 1732), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (289, 3046), (319, 3148), (338, 3259),

Gene: Yikes_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Yikes_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Zany_2 Start: 201, Stop: 1712, Start Num: 39

Candidate Starts for Zany_2:

(15, 144), (Start: 39 @201 has 38 MA's), (53, 243), (89, 432), (102, 507), (123, 675), (133, 726), (134, 729), (139, 768), (144, 795), (148, 819), (152, 843), (160, 894), (177, 918), (179, 945), (181, 954), (196, 1041), (208, 1125), (212, 1164), (215, 1188), (216, 1194), (276, 1512), (278, 1518), (286, 1590),

Gene: Zenon_5 Start: 1624, Stop: 3276, Start Num: 41

Candidate Starts for Zenon_5:

(Start: 41 @1624 has 12 MA's), (65, 1732), (74, 1795), (82, 1828), (102, 1936), (105, 1975), (113, 2029), (116, 2044), (118, 2065), (119, 2071), (121, 2089), (148, 2245), (152, 2269), (165, 2299), (181, 2371), (209, 2569), (213, 2587), (219, 2638), (242, 2761), (245, 2791), (256, 2845), (260, 2860), (267, 2887), (272, 2911), (279, 2947), (282, 2980), (286, 3016), (319, 3148), (338, 3259),