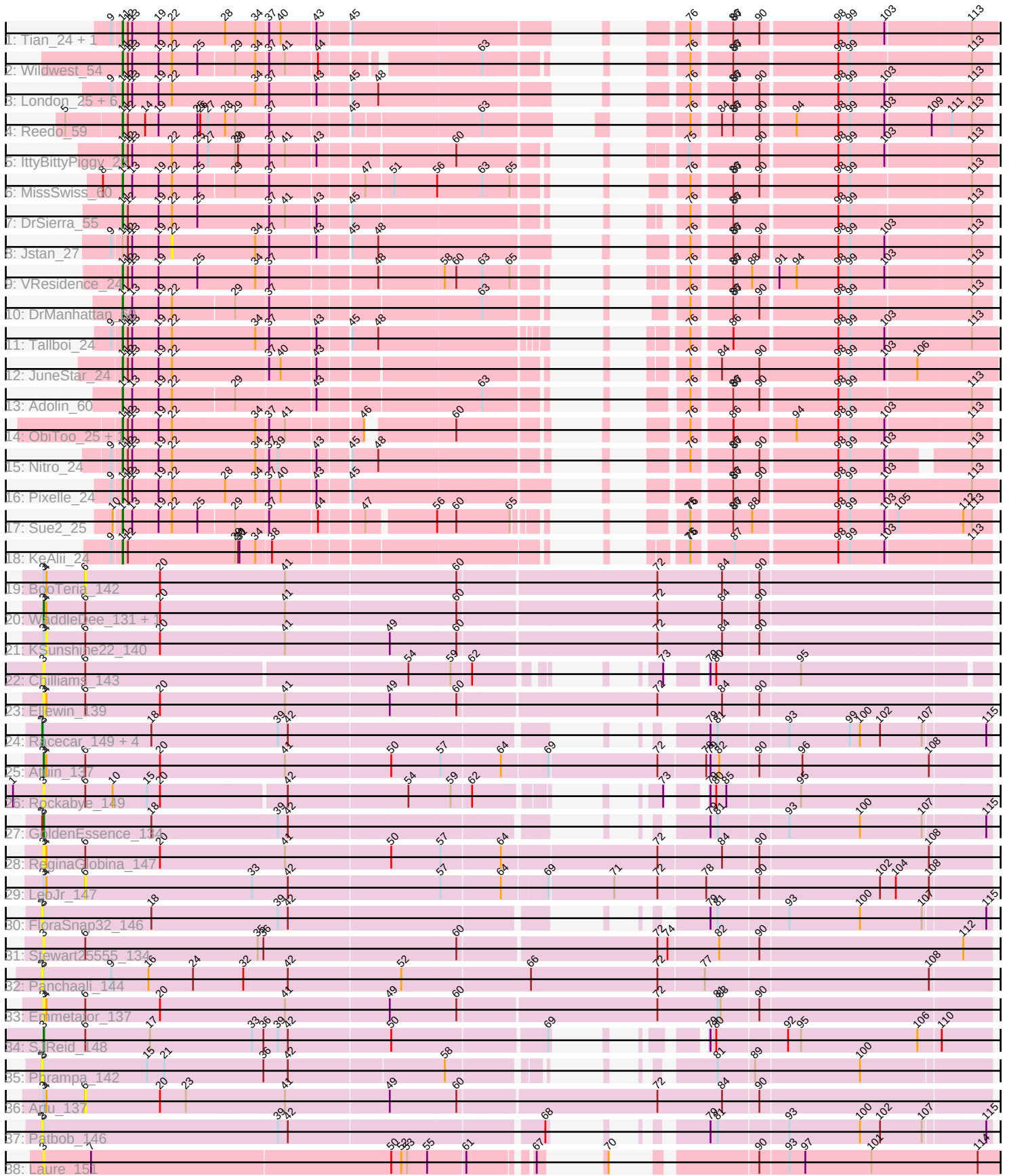




Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 280532 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280532 has 51 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Tian_24, Amyev_24
- Track 2 : Wildwest_54
- Track 3 : London_25, Skelbel_26, Subaru_26, Asa16_25, Niobe_25, Eraser_25, Elezi_25
- Track 4 : Reedo_59
- Track 5 : IttyBittyPiggy_23
- Track 6 : MissSwiss_60
- Track 7 : DrSierra_55
- Track 8 : Jstan_27
- Track 9 : VResidence_24
- Track 10 : DrManhattan_60
- Track 11 : Tallboi_24
- Track 12 : JuneStar_24
- Track 13 : Adolin_60
- Track 14 : ObiToo_25, Crewmate_26
- Track 15 : Nitro_24
- Track 16 : Pixelle_24
- Track 17 : Sue2_25
- Track 18 : KeAlii_24
- Track 19 : BooTeria_142
- Track 20 : WaddleDee_131, DunneganBoMo_134
- Track 21 : KSunshine22_140
- Track 22 : Chilliams_143
- Track 23 : Ellewin_139
- Track 24 : Racecar_149, Bloom_152, FrostedClock_151, Talia1610_150, Mimi_148
- Track 25 : Atuin_137
- Track 26 : Rockabye_149
- Track 27 : GoldenEssence_134
- Track 28 : ReginaGlobina_147
- Track 29 : LeoJr_147
- Track 30 : FloraSnap32_146
- Track 31 : Stewart25555_134
- Track 32 : Panchaali_144
- Track 33 : Emmetator_137
- Track 34 : SJReid_148
- Track 35 : Phrampa_142
- Track 36 : Artu_137

- Track 37 : Patbob_146
- Track 38 : Laure_151

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

The start number called the most often in the published annotations is 11, it was called in 22 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adolin_60, Amyev_24, Asa16_25, Crewmate_26, DrManhattan_60, DrSierra_55, Elezi_25, Eraser_25, IttyBittyPiggy_23, JuneStar_24, KeAlii_24, London_25, MissSwiss_60, Niobe_25, Nitro_24, ObiToo_25, Pixelle_24, Reedo_59, Skelbel_26, Subaru_26, Sue2_25, Tallboi_24, Tian_24, VResidence_24, Wildwest_54,

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

- Jstan_27,

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

- Artu_137, Atuin_137, Bloom_152, BooTeria_142, Chilliams_143, DunneganBoMo_134, Ellewin_139, Emmetator_137, FloraSnap32_146, FrostedClock_151, GoldenEssence_134, KSunshine22_140, Laure_151, LeoJr_147, Mimi_148, Panchaali_144, Patbob_146, Phrampa_142, Racecar_149, ReginaGlobina_147, Rockabye_149, SJReid_148, Stewart25555_134, Talia1610_150, WaddleDee_131,

Summary by start number:

Start 2:

- Found in 10 of 51 (19.6%) of genes in pham
- Manual Annotations of this start: 3 of 30
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Bloom_152 (FC), FloraSnap32_146 (FC), FrostedClock_151 (FC), Mimi_148 (FC), Panchaali_144 (FC), Patbob_146 (FC), Phrampa_142 (FC), Racecar_149 (FC), Talia1610_150 (FC),

Start 3:

- Found in 25 of 51 (49.0%) of genes in pham
- Manual Annotations of this start: 5 of 30
- Called 48.0% of time when present
- Phage (with cluster) where this start called: Atuin_137 (FC), Chilliams_143 (FC), DunneganBoMo_134 (FC), Ellewin_139 (FC), Emmetator_137 (FC), GoldenEssence_134 (FC), Laure_151 (UNK), ReginaGlobina_147 (FC), Rockabye_149 (FC), SJReid_148 (FC), Stewart25555_134 (FC), WaddleDee_131 (FC),

Start 4:

- Found in 10 of 51 (19.6%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: KSunshine22_140 (FC),

Start 6:

- Found in 14 of 51 (27.5%) of genes in pham
- No Manual Annotations of this start.
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Artu_137 (FC), BooTeria_142 (FC), LeoJr_147 (FC),

Start 11:

- Found in 26 of 51 (51.0%) of genes in pham
- Manual Annotations of this start: 22 of 30
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Adolin_60 (AZ1), Amyev_24 (AZ1), Asa16_25 (AZ1), Crewmate_26 (AZ1), DrManhattan_60 (AZ1), DrSierra_55 (AZ1), Elezi_25 (AZ1), Eraser_25 (AZ1), IttyBittyPiggy_23 (AZ1), JuneStar_24 (AZ1), KeAlii_24 (AZ1), London_25 (AZ1), MissSwiss_60 (AZ1), Niobe_25 (AZ1), Nitro_24 (AZ1), ObiToo_25 (AZ1), Pixelle_24 (AZ1), Reedo_59 (AZ1), Skelbel_26 (AZ1), Subaru_26 (AZ1), Sue2_25 (AZ1), Tallboi_24 (AZ1), Tian_24 (AZ1), VResidence_24 (AZ1), Wildwest_54 (AZ1),

Start 22:

- Found in 23 of 51 (45.1%) of genes in pham
- No Manual Annotations of this start.
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Jstan_27 (AZ1),

Summary by clusters:

There are 3 clusters represented in this pham: AZ1, UNK, FC,

Info for manual annotations of cluster AZ1:

- Start number 11 was manually annotated 22 times for cluster AZ1.

Info for manual annotations of cluster FC:

- Start number 2 was manually annotated 3 times for cluster FC.
- Start number 3 was manually annotated 5 times for cluster FC.

Gene Information:

Gene: Adolin_60 Start: 37995, Stop: 39464, Start Num: 11

Candidate Starts for Adolin_60:

(Start: 11 @37995 has 22 MA's), (13, 38013), (19, 38064), (22, 38091), (29, 38211), (43, 38370), (63, 38685), (76, 38880), (86, 38952), (87, 38955), (90, 39006), (98, 39159), (99, 39183), (113, 39423),

Gene: Amyev_24 Start: 20257, Stop: 21768, Start Num: 11

Candidate Starts for Amyev_24:

(9, 20239), (Start: 11 @20257 has 22 MA's), (12, 20266), (13, 20275), (19, 20326), (22, 20353), (28, 20461), (34, 20524), (37, 20548), (40, 20572), (43, 20641), (45, 20701), (76, 21175), (86, 21247), (87, 21250), (90, 21301), (98, 21454), (99, 21478), (103, 21550), (113, 21718),

Gene: Artu_137 Start: 95694, Stop: 97517, Start Num: 6

Candidate Starts for Artu_137:

(Start: 3 @95607 has 5 MA's), (4, 95613), (6, 95694), (20, 95850), (23, 95904), (41, 96105), (49, 96318), (60, 96456), (72, 96849), (84, 96984), (90, 97056),

Gene: Asa16_25 Start: 20493, Stop: 21989, Start Num: 11

Candidate Starts for Asa16_25:

(9, 20475), (Start: 11 @20493 has 22 MA's), (12, 20502), (13, 20511), (19, 20562), (22, 20589), (34, 20760), (37, 20784), (43, 20877), (45, 20937), (48, 20988), (76, 21408), (86, 21480), (87, 21483), (90, 21534), (98, 21687), (99, 21711), (103, 21783), (113, 21951),

Gene: Atuin_137 Start: 98423, Stop: 100324, Start Num: 3

Candidate Starts for Atuin_137:

(Start: 3 @98423 has 5 MA's), (4, 98429), (6, 98510), (20, 98666), (41, 98921), (50, 99134), (57, 99236), (64, 99350), (69, 99440), (72, 99662), (78, 99758), (79, 99767), (82, 99785), (90, 99863), (96, 99947), (108, 100208),

Gene: Bloom_152 Start: 100610, Stop: 102271, Start Num: 2

Candidate Starts for Bloom_152:

(Start: 2 @100610 has 3 MA's), (Start: 3 @100613 has 5 MA's), (18, 100838), (39, 101096), (42, 101117), (79, 101720), (81, 101735), (93, 101873), (99, 101999), (100, 102020), (102, 102062), (107, 102146), (115, 102263),

Gene: BooTeria_142 Start: 95835, Stop: 97658, Start Num: 6

Candidate Starts for BooTeria_142:

(Start: 3 @95748 has 5 MA's), (4, 95754), (6, 95835), (20, 95991), (41, 96246), (60, 96597), (72, 96990), (84, 97125), (90, 97197),

Gene: Chilliams_143 Start: 89749, Stop: 91368, Start Num: 3

Candidate Starts for Chilliams_143:

(Start: 3 @89749 has 5 MA's), (6, 89836), (54, 90487), (59, 90574), (62, 90613), (73, 90775), (79, 90826), (80, 90838), (95, 91000),

Gene: Crewmate_26 Start: 19076, Stop: 20530, Start Num: 11

Candidate Starts for Crewmate_26:

(Start: 11 @19076 has 22 MA's), (12, 19085), (13, 19094), (19, 19145), (22, 19172), (34, 19343), (37, 19367), (41, 19400), (46, 19544), (60, 19697), (76, 19949), (86, 20021), (94, 20141), (98, 20228), (99, 20252), (103, 20324), (113, 20492),

Gene: DrManhattan_60 Start: 37563, Stop: 39020, Start Num: 11

Candidate Starts for DrManhattan_60:

(Start: 11 @37563 has 22 MA's), (13, 37581), (19, 37632), (22, 37659), (29, 37779), (37, 37845), (63, 38253), (76, 38436), (86, 38508), (87, 38511), (90, 38562), (98, 38715), (99, 38739), (113, 38979),

Gene: DrSierra_55 Start: 37478, Stop: 38938, Start Num: 11

Candidate Starts for DrSierra_55:

(Start: 11 @37478 has 22 MA's), (12, 37487), (19, 37547), (22, 37574), (25, 37625), (37, 37769), (41, 37802), (43, 37862), (45, 37922), (76, 38354), (86, 38426), (87, 38429), (98, 38633), (99, 38657), (113, 38897),

Gene: DunneganBoMo_134 Start: 95017, Stop: 96927, Start Num: 3

Candidate Starts for DunneganBoMo_134:

(Start: 3 @95017 has 5 MA's), (4, 95023), (6, 95104), (20, 95260), (41, 95515), (60, 95866), (72, 96259), (84, 96394), (90, 96466),

Gene: Elezi_25 Start: 20494, Stop: 21990, Start Num: 11

Candidate Starts for Elezi_25:

(9, 20476), (Start: 11 @20494 has 22 MA's), (12, 20503), (13, 20512), (19, 20563), (22, 20590), (34, 20761), (37, 20785), (43, 20878), (45, 20938), (48, 20989), (76, 21409), (86, 21481), (87, 21484), (90, 21535), (98, 21688), (99, 21712), (103, 21784), (113, 21952),

Gene: Ellewin_139 Start: 94866, Stop: 96776, Start Num: 3

Candidate Starts for Ellewin_139:

(Start: 3 @94866 has 5 MA's), (4, 94872), (6, 94953), (20, 95109), (41, 95364), (49, 95577), (60, 95715), (72, 96108), (84, 96243), (90, 96315),

Gene: Emmetator_137 Start: 94934, Stop: 96844, Start Num: 3

Candidate Starts for Emmetator_137:

(Start: 3 @94934 has 5 MA's), (4, 94940), (6, 95021), (20, 95177), (41, 95432), (49, 95645), (60, 95783), (72, 96176), (81, 96302), (83, 96308), (90, 96383),

Gene: Eraser_25 Start: 20494, Stop: 21996, Start Num: 11

Candidate Starts for Eraser_25:

(9, 20476), (Start: 11 @20494 has 22 MA's), (12, 20503), (13, 20512), (19, 20563), (22, 20590), (34, 20761), (37, 20785), (43, 20878), (45, 20938), (48, 20989), (76, 21415), (86, 21487), (87, 21490), (90, 21541), (98, 21694), (99, 21718), (103, 21790), (113, 21958),

Gene: FloraSnap32_146 Start: 99122, Stop: 100783, Start Num: 2

Candidate Starts for FloraSnap32_146:

(Start: 2 @99122 has 3 MA's), (Start: 3 @99125 has 5 MA's), (18, 99350), (39, 99608), (42, 99629), (79, 100232), (81, 100247), (93, 100385), (100, 100532), (107, 100658), (115, 100775),

Gene: FrostedClock_151 Start: 100607, Stop: 102268, Start Num: 2

Candidate Starts for FrostedClock_151:

(Start: 2 @100607 has 3 MA's), (Start: 3 @100610 has 5 MA's), (18, 100835), (39, 101093), (42, 101114), (79, 101717), (81, 101732), (93, 101870), (99, 101996), (100, 102017), (102, 102059), (107, 102143), (115, 102260),

Gene: GoldenEssence_134 Start: 94008, Stop: 95666, Start Num: 3

Candidate Starts for GoldenEssence_134:

(Start: 2 @94005 has 3 MA's), (Start: 3 @94008 has 5 MA's), (18, 94233), (39, 94491), (42, 94512), (79, 95115), (81, 95130), (93, 95268), (100, 95415), (107, 95541), (115, 95658),

Gene: IttyBittyPiggy_23 Start: 18356, Stop: 19831, Start Num: 11

Candidate Starts for IttyBittyPiggy_23:

(Start: 11 @18356 has 22 MA's), (12, 18365), (13, 18374), (22, 18452), (25, 18503), (27, 18524), (29, 18581), (30, 18587), (37, 18647), (41, 18680), (43, 18740), (60, 19001), (75, 19235), (90, 19364), (98, 19517), (99, 19541), (103, 19613), (113, 19781),

Gene: Jstan_27 Start: 20590, Stop: 21990, Start Num: 22

Candidate Starts for Jstan_27:

(9, 20476), (Start: 11 @20494 has 22 MA's), (12, 20503), (13, 20512), (19, 20563), (22, 20590), (34, 20761), (37, 20785), (43, 20878), (45, 20938), (48, 20989), (76, 21409), (86, 21481), (87, 21484), (90, 21535), (98, 21688), (99, 21712), (103, 21784), (113, 21952),

Gene: JuneStar_24 Start: 20659, Stop: 22146, Start Num: 11

Candidate Starts for JuneStar_24:

(Start: 11 @20659 has 22 MA's), (12, 20668), (13, 20677), (19, 20728), (22, 20755), (37, 20950), (40, 20974), (43, 21043), (76, 21541), (84, 21589), (90, 21667), (98, 21832), (99, 21856), (103, 21928), (106, 21991),

Gene: KSunshine22_140 Start: 96432, Stop: 98336, Start Num: 4

Candidate Starts for KSunshine22_140:

(Start: 3 @96426 has 5 MA's), (4, 96432), (6, 96513), (20, 96669), (41, 96924), (49, 97137), (60, 97275), (72, 97668), (84, 97803), (90, 97875),

Gene: KeAlii_24 Start: 18542, Stop: 20020, Start Num: 11

Candidate Starts for KeAlii_24:

(9, 18524), (Start: 11 @18542 has 22 MA's), (12, 18551), (29, 18767), (30, 18773), (31, 18776), (34, 18809), (38, 18839), (75, 19433), (76, 19436), (87, 19511), (98, 19715), (99, 19739), (103, 19811), (113, 19979),

Gene: Laure_151 Start: 92476, Stop: 94164, Start Num: 3

Candidate Starts for Laure_151:

(Start: 3 @92476 has 5 MA's), (7, 92575), (50, 93193), (52, 93214), (53, 93226), (55, 93268), (61, 93343), (67, 93454), (70, 93481), (90, 93667), (93, 93724), (97, 93757), (101, 93895), (114, 94111),

Gene: LeoJr_147 Start: 99111, Stop: 100919, Start Num: 6

Candidate Starts for LeoJr_147:

(Start: 3 @99024 has 5 MA's), (4, 99030), (6, 99111), (33, 99456), (42, 99528), (57, 99837), (64, 99951), (69, 100035), (71, 100167), (72, 100257), (78, 100353), (90, 100458), (102, 100704), (104, 100737), (108, 100803),

Gene: London_25 Start: 20494, Stop: 21990, Start Num: 11

Candidate Starts for London_25:

(9, 20476), (Start: 11 @20494 has 22 MA's), (12, 20503), (13, 20512), (19, 20563), (22, 20590), (34, 20761), (37, 20785), (43, 20878), (45, 20938), (48, 20989), (76, 21409), (86, 21481), (87, 21484), (90, 21535), (98, 21688), (99, 21712), (103, 21784), (113, 21952),

Gene: Mimi_148 Start: 99675, Stop: 101336, Start Num: 2

Candidate Starts for Mimi_148:

(Start: 2 @99675 has 3 MA's), (Start: 3 @99678 has 5 MA's), (18, 99903), (39, 100161), (42, 100182), (79, 100785), (81, 100800), (93, 100938), (99, 101064), (100, 101085), (102, 101127), (107, 101211), (115, 101328),

Gene: MissSwiss_60 Start: 37830, Stop: 39293, Start Num: 11

Candidate Starts for MissSwiss_60:

(8, 37791), (Start: 11 @37830 has 22 MA's), (13, 37848), (19, 37899), (22, 37926), (25, 37977), (29, 38046), (37, 38112), (47, 38292), (51, 38343), (56, 38433), (63, 38520), (65, 38574), (76, 38709), (86, 38781), (87, 38784), (90, 38835), (98, 38988), (99, 39012), (113, 39252),

Gene: Niobe_25 Start: 20494, Stop: 21990, Start Num: 11

Candidate Starts for Niobe_25:

(9, 20476), (Start: 11 @20494 has 22 MA's), (12, 20503), (13, 20512), (19, 20563), (22, 20590), (34, 20761), (37, 20785), (43, 20878), (45, 20938), (48, 20989), (76, 21409), (86, 21481), (87, 21484), (90, 21535), (98, 21688), (99, 21712), (103, 21784), (113, 21952),

Gene: Nitro_24 Start: 19868, Stop: 21319, Start Num: 11

Candidate Starts for Nitro_24:

(9, 19850), (Start: 11 @19868 has 22 MA's), (12, 19877), (13, 19886), (19, 19937), (22, 19964), (34, 20135), (37, 20159), (39, 20177), (43, 20252), (45, 20312), (48, 20363), (76, 20771), (86, 20843), (87, 20846), (90, 20897), (98, 21050), (99, 21074), (103, 21146), (113, 21281),

Gene: ObiToo_25 Start: 18813, Stop: 20267, Start Num: 11

Candidate Starts for ObiToo_25:

(Start: 11 @18813 has 22 MA's), (12, 18822), (13, 18831), (19, 18882), (22, 18909), (34, 19080), (37, 19104), (41, 19137), (46, 19281), (60, 19434), (76, 19686), (86, 19758), (94, 19878), (98, 19965), (99, 19989), (103, 20061), (113, 20229),

Gene: Panchaali_144 Start: 95349, Stop: 97271, Start Num: 2

Candidate Starts for Panchaali_144:

(Start: 2 @95349 has 3 MA's), (Start: 3 @95352 has 5 MA's), (9, 95493), (16, 95571), (24, 95664), (32, 95769), (42, 95862), (52, 96090), (66, 96345), (72, 96609), (77, 96702), (108, 97155),

Gene: Patbob_146 Start: 100134, Stop: 101795, Start Num: 2

Candidate Starts for Patbob_146:

(Start: 2 @100134 has 3 MA's), (Start: 3 @100137 has 5 MA's), (39, 100620), (42, 100641), (68, 101136), (79, 101244), (81, 101259), (93, 101397), (100, 101544), (102, 101586), (107, 101670), (115, 101787),

Gene: Phrampa_142 Start: 101793, Stop: 103436, Start Num: 2

Candidate Starts for Phrampa_142:

(Start: 2 @101793 has 3 MA's), (Start: 3 @101796 has 5 MA's), (15, 102012), (21, 102048), (36, 102255), (42, 102306), (58, 102618), (81, 102900), (89, 102972), (100, 103185),

Gene: Pixelle_24 Start: 20263, Stop: 21774, Start Num: 11

Candidate Starts for Pixelle_24:

(9, 20245), (Start: 11 @20263 has 22 MA's), (12, 20272), (13, 20281), (19, 20332), (22, 20359), (28, 20467), (34, 20530), (37, 20554), (40, 20578), (43, 20647), (45, 20707), (86, 21253), (87, 21256), (90, 21307), (98, 21460), (99, 21484), (103, 21556), (113, 21724),

Gene: Racecar_149 Start: 100663, Stop: 102324, Start Num: 2

Candidate Starts for Racecar_149:

(Start: 2 @100663 has 3 MA's), (Start: 3 @100666 has 5 MA's), (18, 100891), (39, 101149), (42, 101170), (79, 101773), (81, 101788), (93, 101926), (99, 102052), (100, 102073), (102, 102115), (107, 102199), (115, 102316),

Gene: Reedo_59 Start: 37394, Stop: 38914, Start Num: 11

Candidate Starts for Reedo_59:

(5, 37280), (Start: 11 @37394 has 22 MA's), (12, 37403), (14, 37439), (19, 37463), (25, 37541), (26, 37547), (27, 37562), (28, 37598), (29, 37619), (37, 37685), (45, 37838), (63, 38087), (76, 38330), (84, 38378), (86, 38402), (87, 38405), (90, 38456), (94, 38522), (98, 38609), (99, 38633), (103, 38705), (109, 38798), (111, 38834), (113, 38873),

Gene: ReginaGlobina_147 Start: 99503, Stop: 101404, Start Num: 3

Candidate Starts for ReginaGlobina_147:

(Start: 3 @99503 has 5 MA's), (4, 99509), (6, 99590), (20, 99746), (41, 100001), (50, 100214), (57, 100316), (64, 100430), (72, 100742), (84, 100871), (90, 100943), (108, 101288),

Gene: Rockabye_149 Start: 91370, Stop: 93013, Start Num: 3

Candidate Starts for Rockabye_149:

(1, 91307), (Start: 3 @91370 has 5 MA's), (6, 91457), (10, 91514), (15, 91586), (20, 91613), (42, 91865), (54, 92108), (59, 92195), (62, 92234), (73, 92408), (79, 92459), (80, 92471), (85, 92492), (95, 92633),

Gene: SJReid_148 Start: 89888, Stop: 91558, Start Num: 3

Candidate Starts for SJReid_148:

(Start: 3 @89888 has 5 MA's), (6, 89975), (17, 90110), (33, 90320), (36, 90344), (39, 90371), (42, 90392), (50, 90599), (69, 90902), (79, 91004), (80, 91016), (92, 91151), (95, 91178), (106, 91421), (110, 91463),

Gene: Skelbel_26 Start: 20494, Stop: 21990, Start Num: 11

Candidate Starts for Skelbel_26:

(9, 20476), (Start: 11 @20494 has 22 MA's), (12, 20503), (13, 20512), (19, 20563), (22, 20590), (34, 20761), (37, 20785), (43, 20878), (45, 20938), (48, 20989), (76, 21409), (86, 21481), (87, 21484), (90, 21535), (98, 21688), (99, 21712), (103, 21784), (113, 21952),

Gene: Stewart25555_134 Start: 96026, Stop: 97936, Start Num: 3

Candidate Starts for Stewart25555_134:

(Start: 3 @96026 has 5 MA's), (6, 96113), (35, 96470), (36, 96482), (60, 96875), (72, 97268), (74, 97289), (82, 97391), (90, 97469), (112, 97883),

Gene: Subaru_26 Start: 20494, Stop: 21990, Start Num: 11

Candidate Starts for Subaru_26:

(9, 20476), (Start: 11 @20494 has 22 MA's), (12, 20503), (13, 20512), (19, 20563), (22, 20590), (34, 20761), (37, 20785), (43, 20878), (45, 20938), (48, 20989), (76, 21409), (86, 21481), (87, 21484), (90, 21535), (98, 21688), (99, 21712), (103, 21784), (113, 21952),

Gene: Sue2_25 Start: 19348, Stop: 20793, Start Num: 11

Candidate Starts for Sue2_25:

(10, 19333), (Start: 11 @19348 has 22 MA's), (13, 19366), (19, 19417), (22, 19444), (25, 19495), (29, 19564), (37, 19630), (44, 19726), (47, 19810), (56, 19939), (60, 19975), (65, 20077), (75, 20203), (76, 20206), (86, 20278), (87, 20281), (88, 20317), (98, 20485), (99, 20509), (103, 20581), (105, 20605), (112, 20737), (113, 20752),

Gene: Talia1610_150 Start: 100678, Stop: 102339, Start Num: 2

Candidate Starts for Talia1610_150:

(Start: 2 @100678 has 3 MA's), (Start: 3 @100681 has 5 MA's), (18, 100906), (39, 101164), (42, 101185), (79, 101788), (81, 101803), (93, 101941), (99, 102067), (100, 102088), (102, 102130), (107, 102214), (115, 102331),

Gene: Tallboi_24 Start: 19849, Stop: 21330, Start Num: 11

Candidate Starts for Tallboi_24:

(9, 19831), (Start: 11 @19849 has 22 MA's), (12, 19858), (13, 19867), (19, 19918), (22, 19945), (34, 20116), (37, 20140), (43, 20233), (45, 20293), (48, 20341), (76, 20737), (86, 20809), (98, 21016), (99, 21040), (103, 21112), (113, 21280),

Gene: Tian_24 Start: 20257, Stop: 21768, Start Num: 11

Candidate Starts for Tian_24:

(9, 20239), (Start: 11 @20257 has 22 MA's), (12, 20266), (13, 20275), (19, 20326), (22, 20353), (28, 20461), (34, 20524), (37, 20548), (40, 20572), (43, 20641), (45, 20701), (76, 21175), (86, 21247), (87, 21250), (90, 21301), (98, 21454), (99, 21478), (103, 21550), (113, 21718),

Gene: VResidence_24 Start: 18581, Stop: 20053, Start Num: 11

Candidate Starts for VResidence_24:

(Start: 11 @18581 has 22 MA's), (12, 18590), (13, 18599), (19, 18650), (25, 18728), (34, 18848), (37, 18872), (48, 19076), (58, 19205), (60, 19229), (63, 19277), (65, 19331), (76, 19469), (86, 19541), (87, 19544), (88, 19580), (91, 19625), (94, 19661), (98, 19748), (99, 19772), (103, 19844), (113, 20012),

Gene: WaddleDee_131 Start: 94203, Stop: 96113, Start Num: 3

Candidate Starts for WaddleDee_131:

(Start: 3 @94203 has 5 MA's), (4, 94209), (6, 94290), (20, 94446), (41, 94701), (60, 95052), (72, 95445), (84, 95580), (90, 95652),

Gene: Wildwest_54 Start: 38561, Stop: 40003, Start Num: 11

Candidate Starts for Wildwest_54:

(Start: 11 @38561 has 22 MA's), (12, 38570), (13, 38579), (19, 38630), (22, 38657), (25, 38708), (29, 38777), (34, 38819), (37, 38843), (41, 38876), (44, 38939), (63, 39224), (76, 39419), (86, 39491), (87, 39494), (98, 39698), (99, 39722), (113, 39962),