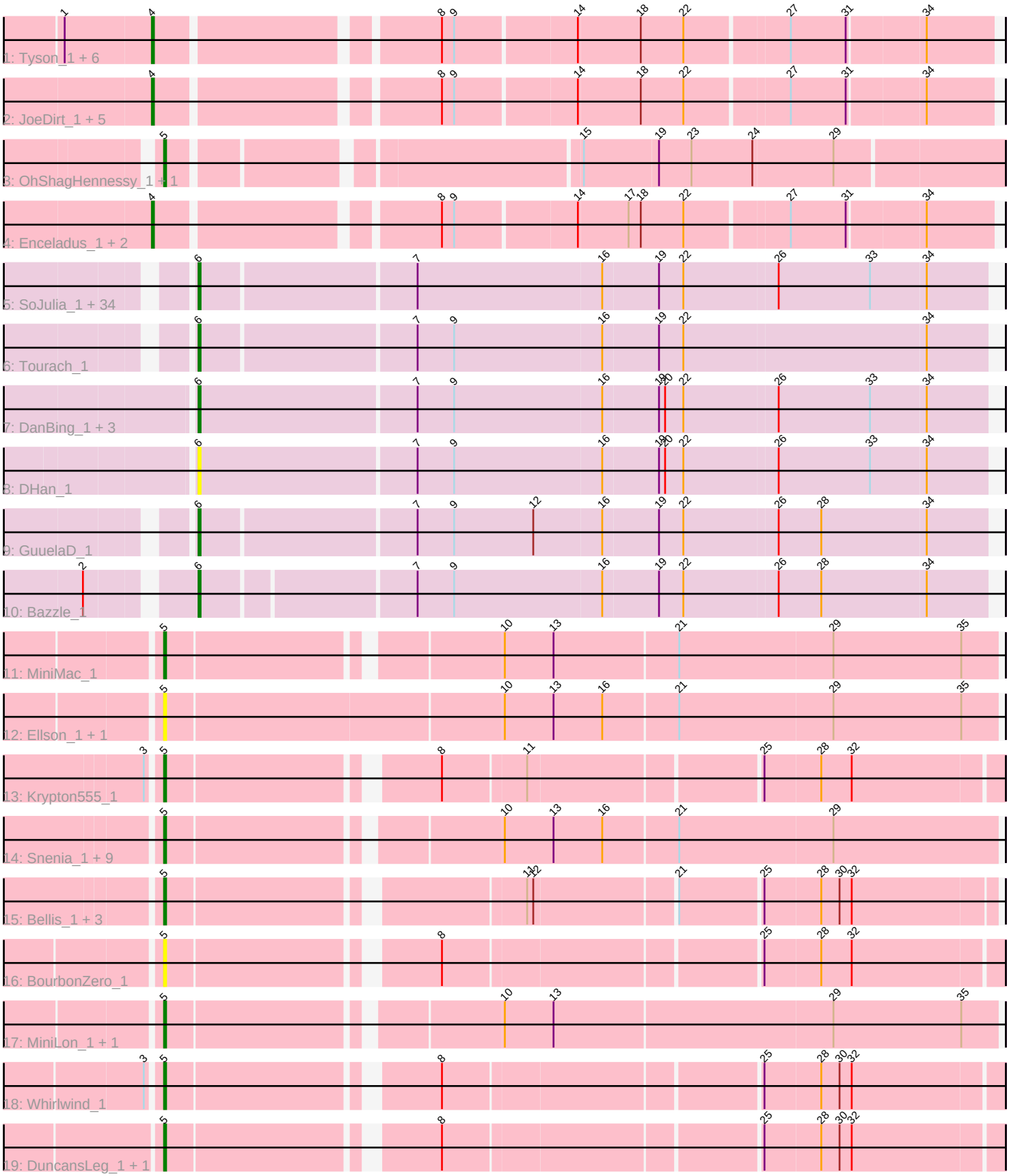
Pham 342046


1: Tyson_1 + 6
2: JoeDirt_1 + 5
3: OhShagHennessy_1 + 1
4: Enceladus_1 + 2
5: SoJulia_1 + 34
6: Tourach_1
7: DanBing_1 + 3
8: DHan_1
9: GuuelaD_1
10: Bazzle_1
11: MiniMac_1
12: Ellson_1 + 1
13: Krypton555_1
14: Snenia_1 + 9
15: Bellis_1 + 3
16: BourbonZero_1
17: MiniLon_1 + 1
18: Whirlwind_1
19: DuncansLeg_1 + 1

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 342046 Report

This analysis was run 11/14/26 on database version 672.

Pham number 342046 has 85 members, 17 are drafts.

Phages represented in each track:
• Track 1 : Tyson_1, Calm_1, Wyatt2_1, Zaria_1, Wamburgrxpress_1, Acquire49_1, Rose5_1
• Track 2 : JoeDirt_1, MAckerman_1, CicholasNage_1, Halena_1, AvadaKedavra_1, Silverleaf_1
• Track 3 : OhShagHennessy_1, Appletree2_1
• Track 4 : Enceladus_1, LeBron_1, UPIE_1
• Track 5 : SoJulia_1, Kahlid_1, DrSeegs_1, Wilder_1, Netyap_1, Nicholasp3_1, Miley16_1, Breezona_1, Sarshaun_1, Underpass_1, ChengKai98_1, OverPar_1, Gabriela_1, Finemlucis_1, Vetrix_1, LilDestine_1, Lynnae_1, Zakai_1, MkaliMitinis3_1, Wigglewiggle_1, Faith1_1, Itos_1, Hafay_1, Crossroads_1, BigCheese_1, Loadrie_1, Soap141_1, Rossetti_1, Lewan_1, Winky_1, Rumpelstiltskin_1, BobsGarage_1, Hiraya_1, Molivier_1, Gardann_1
• Track 6 : Tourach_1
• Track 7 : DanBing_1, Baoshan_1, Claus_1, ZhongYanYuan_1
• Track 8 : DHan_1
• Track 9 : GuuelaD_1
• Track 10 : Bazzle_1
• Track 11 : MiniMac_1
• Track 12 : Ellson_1, KirDoubleO7_1
• Track 13 : Krypton555_1
• Track 14 : Snenia_1, MsGreen_1, Clautastrophe_1, Lumos_1, Red305_1, Jubie_1, Kingsolomon_1, Nicholas_1, TriFive_1, Jobypre_1
• Track 15 : Bellis_1, Samty_1, Moostard_1, Finnry_1
• Track 16 : BourbonZero_1
• Track 17 : MiniLon_1, Lolly9_1
• Track 18 : Whirlwind_1
• Track 19 : DuncansLeg_1, LiyuLake_1

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

The start number called the most often in the published annotations is 6, it was called in 31 of the 68 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Baoshan_1, Bazzle_1, BigCheese_1, BobsGarage_1, Breezona_1, ChengKai98_1, Claus_1, Crossroads_1, DHan_1, DanBing_1, DrSeegs_1, Faith1_1, Finemlucis_1, Gabriela_1, Gardann_1, GuuelaD_1, Hafay_1, Hiraya_1, Itos_1, Kahlid_1, Lewan_1, LilDestine_1, Loadrie_1, Lynnae_1, Miley16_1, MkaliMitinis3_1, Molivier_1, Netyap_1, Nicholasp3_1, OverPar_1, Rossetti_1, Rumpelstiltskin_1, Sarshaun_1, SoJulia_1, Soap141_1, Tourach_1, Underpass_1, Vetrix_1, Wigglewiggle_1, Wilder_1, Winky_1, Zakai_1, ZhongYanYuan_1,

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

Genes that do not have the "Most Annotated" start:
• Acquire49_1, Appletree2_1, AvadaKedavra_1, Bellis_1, BourbonZero_1, Calm_1, CicholasNage_1, Clautastrophe_1, DuncansLeg_1, Ellson_1, Enceladus_1, Finnry_1, Halena_1, Jobypre_1, JoeDirt_1, Jubie_1, Kingsolomon_1, KirDoubleO7_1, Krypton555_1, LeBron_1, LiyuLake_1, Lolly9_1, Lumos_1, MAckerman_1, MiniLon_1, MiniMac_1, Moostard_1, MsGreen_1, Nicholas_1, OhShagHennessy_1, Red305_1, Rose5_1, Samty_1, Silverleaf_1, Snenia_1, TriFive_1, Tyson_1, UPIE_1, Wamburgrxpress_1, Whirlwind_1, Wyatt2_1, Zaria_1,

Summary by start number:

Start 4:
• Found in 16 of 85 (18.8%) of genes in pham
• Manual Annotations of this start: 16 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acquire49_1 (L1), AvadaKedavra_1 (L1), Calm_1 (L1), CicholasNage_1 (L1), Enceladus_1 (L1), Halena_1 (L1), JoeDirt_1 (L1), LeBron_1 (L1), MAckerman_1 (L1), Rose5_1 (L1), Silverleaf_1 (L1), Tyson_1 (L1), UPIE_1 (L1), Wamburgrxpress_1 (L1), Wyatt2_1 (L1), Zaria_1 (L1),

Start 5:
• Found in 26 of 85 (30.6%) of genes in pham
• Manual Annotations of this start: 21 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Appletree2_1 (L1), Bellis_1 (L3), BourbonZero_1 (L3), Clautastrophe_1 (L3), DuncansLeg_1 (L3), Ellson_1 (L3), Finnry_1 (L3), Jobypre_1 (L3), Jubie_1 (L3), Kingsolomon_1 (L3), KirDoubleO7_1 (L3), Krypton555_1 (L3), LiyuLake_1 (L3), Lolly9_1 (L3), Lumos_1 (L3), MiniLon_1 (L3), MiniMac_1 (L3), Moostard_1 (L3), MsGreen_1 (L3), Nicholas_1 (L3), OhShagHennessy_1 (L1), Red305_1 (L3), Samty_1 (L3), Snenia_1 (L3), TriFive_1 (L3), Whirlwind_1 (L3),

Start 6:
• Found in 43 of 85 (50.6%) of genes in pham
• Manual Annotations of this start: 31 of 68
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Baoshan_1 (L2), Bazzle_1 (L2), BigCheese_1 (L2), BobsGarage_1 (L2), Breezona_1 (L2), ChengKai98_1 (L2), Claus_1 (L2), Crossroads_1 (L2), DHan_1 (L2), DanBing_1 (L2), DrSeegs_1 (L2), Faith1_1 (L2), Finemlucis_1 (L2), Gabriela_1 (L2), Gardann_1 (L2), GuuelaD_1 (L2), Hafay_1 (L2), Hiraya_1 (L2), Itos_1 (L2), Kahlid_1 (L2), Lewan_1 (L2), LilDestine_1 (L2), Loadrie_1 (L2), Lynnae_1 (L2), Miley16_1 (L2), MkaliMitinis3_1 (L2), Molivier_1

(L2), Netyap_1 (L2), Nicholasp3_1 (L2), OverPar_1 (L2), Rossetti_1 (L2), Rumpelstiltskin_1 (L2), Sarshaun_1 (L2), SoJulia_1 (L2), Soap141_1 (L2), Tourach_1 (L2), Underpass_1 (L2), Vetrix_1 (L2), Wigglewiggle_1 (L2), Wilder_1 (L2), Winky_1 (L2), Zakai_1 (L2), ZhongYanYuan_1 (L2),

Summary by clusters:

There are 3 clusters represented in this pham: L2, L3, L1,

Info for manual annotations of cluster L1:
•Start number 4 was manually annotated 16 times for cluster L1.
•Start number 5 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 6 was manually annotated 31 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 5 was manually annotated 19 times for cluster L3.

Gene Information:

Gene: Acquire49_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Acquire49_1:
(1, 40), (Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Appletree2_1 Start: 80, Stop: 463, Start Num: 5
Candidate Starts for Appletree2_1:
(Start: 5 @80 has 21 MA's), (15, 263), (19, 299), (23, 314), (24, 344), (29, 383),

Gene: AvadaKedavra_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for AvadaKedavra_1:
(Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Baoshan_1 Start: 100, Stop: 480, Start Num: 6
Candidate Starts for Baoshan_1:
(Start: 6 @100 has 31 MA's), (7, 205), (9, 223), (16, 295), (19, 322), (20, 325), (22, 334), (26, 379), (33, 424), (34, 451),

Gene: Bazzle_1 Start: 95, Stop: 469, Start Num: 6
Candidate Starts for Bazzle_1:
(2, 50), (Start: 6 @95 has 31 MA's), (7, 194), (9, 212), (16, 284), (19, 311), (22, 323), (26, 368), (28, 389), (34, 440),

Gene: Bellis_1 Start: 84, Stop: 461, Start Num: 5
Candidate Starts for Bellis_1:
(Start: 5 @84 has 21 MA's), (11, 243), (12, 246), (21, 312), (25, 351), (28, 378), (30, 387), (32, 393),

Gene: BigCheese_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for BigCheese_1:

(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: BobsGarage_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for BobsGarage_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: BourbonZero_1 Start: 84, Stop: 464, Start Num: 5
Candidate Starts for BourbonZero_1:
(Start: 5 @84 has 21 MA's), (8, 204), (25, 351), (28, 378), (32, 393),

Gene: Breezona_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Breezona_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Calm_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Calm_1:
(1, 40), (Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: ChengKai98_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for ChengKai98_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: CicholasNage_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for CicholasNage_1:
(Start: 4 @83 has 16 MA's), (8, 209), (9, 215), (14, 272), (18, 302), (22, 323), (27, 371), (31, 398), (34, 434),

Gene: Claus_1 Start: 100, Stop: 480, Start Num: 6
Candidate Starts for Claus_1:
(Start: 6 @100 has 31 MA's), (7, 205), (9, 223), (16, 295), (19, 322), (20, 325), (22, 334), (26, 379), (33, 424), (34, 451),

Gene: Clautastrophe_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Clautastrophe_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: Crossroads_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Crossroads_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: DHan_1 Start: 99, Stop: 479, Start Num: 6
Candidate Starts for DHan_1:
(Start: 6 @99 has 31 MA's), (7, 204), (9, 222), (16, 294), (19, 321), (20, 324), (22, 333), (26, 378), (33, 423), (34, 450),

Gene: DanBing_1 Start: 100, Stop: 480, Start Num: 6
Candidate Starts for DanBing_1:
(Start: 6 @100 has 31 MA's), (7, 205), (9, 223), (16, 295), (19, 322), (20, 325), (22, 334), (26, 379), (33, 424), (34, 451),

Gene: DrSeegs_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for DrSeegs_1:

(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: DuncansLeg_1 Start: 86, Stop: 466, Start Num: 5
Candidate Starts for DuncansLeg_1:
(Start: 5 @86 has 21 MA's), (8, 206), (25, 353), (28, 380), (30, 389), (32, 395),

Gene: Ellson_1 Start: 84, Stop: 485, Start Num: 5
Candidate Starts for Ellson_1:
(Start: 5 @84 has 21 MA's), (10, 246), (13, 270), (16, 294), (21, 330), (29, 405), (35, 468),

Gene: Enceladus_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for Enceladus_1:
(Start: 4 @83 has 16 MA's), (8, 209), (9, 215), (14, 272), (17, 296), (18, 302), (22, 323), (27, 371), (31, 398), (34, 434),

Gene: Faith1_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Faith1_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Finemlucis_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Finemlucis_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Finnry_1 Start: 84, Stop: 461, Start Num: 5
Candidate Starts for Finnry_1:
(Start: 5 @84 has 21 MA's), (11, 243), (12, 246), (21, 312), (25, 351), (28, 378), (30, 387), (32, 393),

Gene: Gabriela_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Gabriela_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Gardann_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Gardann_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: GuuelaD_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for GuuelaD_1:
(Start: 6 @91 has 31 MA's), (7, 193), (9, 211), (12, 250), (16, 283), (19, 310), (22, 322), (26, 367), (28, 388), (34, 439),

Gene: Hafay_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Hafay_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Halena_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Halena_1:
(Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Hiraya_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Hiraya_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Itos_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Itos_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Jobypre_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Jobypre_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: JoeDirt_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for JoeDirt_1:
(Start: 4 @83 has 16 MA's), (8, 209), (9, 215), (14, 272), (18, 302), (22, 323), (27, 371), (31, 398), (34, 434),

Gene: Jubie_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Jubie_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: Kahlid_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Kahlid_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Kingsolomon_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Kingsolomon_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: KirDoubleO7_1 Start: 84, Stop: 485, Start Num: 5
Candidate Starts for KirDoubleO7_1:
(Start: 5 @84 has 21 MA's), (10, 246), (13, 270), (16, 294), (21, 330), (29, 405), (35, 468),

Gene: Krypton555_1 Start: 84, Stop: 464, Start Num: 5
Candidate Starts for Krypton555_1:
(3, 78), (Start: 5 @84 has 21 MA's), (8, 204), (11, 243), (25, 351), (28, 378), (32, 393),

Gene: LeBron_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for LeBron_1:
(Start: 4 @83 has 16 MA's), (8, 209), (9, 215), (14, 272), (17, 296), (18, 302), (22, 323), (27, 371), (31, 398), (34, 434),

Gene: Lewan_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Lewan_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: LilDestine_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for LilDestine_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: LiyuLake_1 Start: 86, Stop: 466, Start Num: 5
Candidate Starts for LiyuLake_1:
(Start: 5 @86 has 21 MA's), (8, 206), (25, 353), (28, 380), (30, 389), (32, 395),

Gene: Loadrie_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Loadrie_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Lolly9_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Lolly9_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (29, 393), (35, 456),

Gene: Lumos_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Lumos_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: Lynnae_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Lynnae_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: MAckerman_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for MAckerman_1:
(Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Miley16_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Miley16_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: MiniLon_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for MiniLon_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (29, 393), (35, 456),

Gene: MiniMac_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for MiniMac_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (21, 318), (29, 393), (35, 456),

Gene: MkaliMitinis3_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for MkaliMitinis3_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Molivier_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Molivier_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Moostard_1 Start: 84, Stop: 461, Start Num: 5
Candidate Starts for Moostard_1:
(Start: 5 @84 has 21 MA's), (11, 243), (12, 246), (21, 312), (25, 351), (28, 378), (30, 387), (32, 393),

Gene: MsGreen_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for MsGreen_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: Netyap_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Netyap_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Nicholas_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Nicholas_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: Nicholasp3_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Nicholasp3_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: OhShagHennessy_1 Start: 80, Stop: 463, Start Num: 5
Candidate Starts for OhShagHennessy_1:
(Start: 5 @80 has 21 MA's), (15, 263), (19, 299), (23, 314), (24, 344), (29, 383),

Gene: OverPar_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for OverPar_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Red305_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Red305_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: Rose5_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Rose5_1:
(1, 40), (Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Rossetti_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Rossetti_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Rumpelstiltskin_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Rumpelstiltskin_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Samty_1 Start: 84, Stop: 461, Start Num: 5
Candidate Starts for Samty_1:
(Start: 5 @84 has 21 MA's), (11, 243), (12, 246), (21, 312), (25, 351), (28, 378), (30, 387), (32, 393),

Gene: Sarshaun_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Sarshaun_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Silverleaf_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Silverleaf_1:
(Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Snenia_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for Snenia_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: SoJulia_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for SoJulia_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Soap141_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Soap141_1:

(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Tourach_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Tourach_1:
(Start: 6 @91 has 31 MA's), (7, 193), (9, 211), (16, 283), (19, 310), (22, 322), (34, 439),

Gene: TriFive_1 Start: 84, Stop: 473, Start Num: 5
Candidate Starts for TriFive_1:
(Start: 5 @84 has 21 MA's), (10, 234), (13, 258), (16, 282), (21, 318), (29, 393),

Gene: Tyson_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Tyson_1:
(1, 40), (Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: UPIE_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for UPIE_1:
(Start: 4 @83 has 16 MA's), (8, 209), (9, 215), (14, 272), (17, 296), (18, 302), (22, 323), (27, 371), (31, 398), (34, 434),

Gene: Underpass_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Underpass_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Vetrix_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Vetrix_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Wamburgrxpress_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Wamburgrxpress_1:
(1, 40), (Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Whirlwind_1 Start: 84, Stop: 464, Start Num: 5
Candidate Starts for Whirlwind_1:
(3, 78), (Start: 5 @84 has 21 MA's), (8, 204), (25, 351), (28, 378), (30, 387), (32, 393),

Gene: Wigglewiggle_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Wigglewiggle_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Wilder_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Wilder_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Winky_1 Start: 91, Stop: 468, Start Num: 6
Candidate Starts for Winky_1:
(Start: 6 @91 has 31 MA's), (7, 193), (16, 283), (19, 310), (22, 322), (26, 367), (33, 412), (34, 439),

Gene: Wyatt2_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Wyatt2_1:
(1, 40), (Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: Zakai_1 Start: 91, Stop: 456, Start Num: 6
Candidate Starts for Zakai_1:
(Start: 6 @91 has 31 MA's), (7, 181), (16, 271), (19, 298), (22, 310), (26, 355), (33, 400), (34, 427),

Gene: Zaria_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Zaria_1:
(1, 40), (Start: 4 @82 has 16 MA's), (8, 208), (9, 214), (14, 271), (18, 301), (22, 322), (27, 370), (31, 397), (34, 433),

Gene: ZhongYanYuan_1 Start: 100, Stop: 480, Start Num: 6
Candidate Starts for ZhongYanYuan_1:
(Start: 6 @100 has 31 MA's), (7, 205), (9, 223), (16, 295), (19, 322), (20, 325), (22, 334), (26, 379), (33, 424), (34, 451),