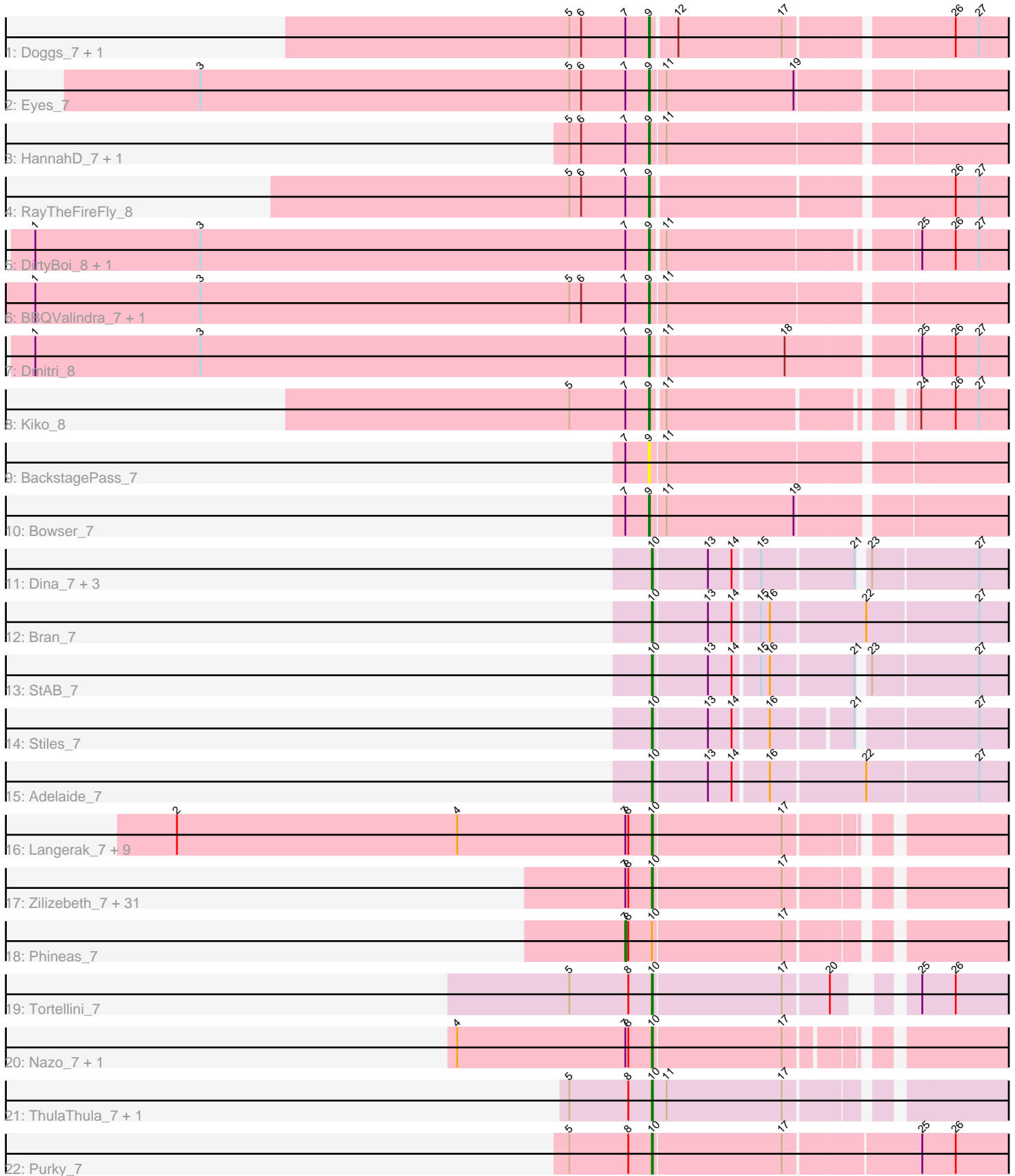


Pham 171432



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 171432 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171432 has 71 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Doggs_7, Coriander_8
- Track 2 : Eyes_7
- Track 3 : HannahD_7, GEazy_7
- Track 4 : RayTheFireFly_8
- Track 5 : DirtyBoi_8, Hedwig_8
- Track 6 : BBQValindra_7, Bunker_7
- Track 7 : Dmitri_8
- Track 8 : Kiko_8
- Track 9 : BackstagePass_7
- Track 10 : Bowser_7
- Track 11 : Dina_7, Troy_7, SamW_7, Lederberg_7
- Track 12 : Bran_7
- Track 13 : StAB_7
- Track 14 : Stiles_7
- Track 15 : Adelaide_7
- Track 16 : Langerak_7, Mangethe_7, Arib1_7, Phegasus_7, Donovan_7, Jebeks_7, Juniormint_7, Sonah_7, Techage_7, Majeke_7
- Track 17 : Zilizebeth_7, FirstPlacePfu_7, StevieRay_7, Glaske_7, Jung_7, Thespis_7, Venti_7, Dynamo_7, Brusacoram_7, KilKor_7, Bunnies_7, Malithi_7, Atcoo_7, Necropolis_7, Kari_7, Willsammy_7, Shipwreck_7, Bartholomew_7, Camster_7, Ksquared_7, Megiddo_7, StressBall_7, Pygmy_7, Polkaroo_7, Fishburne_7, Bogie_7, Xavia_7, Phalm_7, HUHilltop_7, Vidya_7, CactusJack_7, GreaseLightnin_7
- Track 18 : Phineas_7
- Track 19 : Tortellini_7
- Track 20 : Nazo_7, BigNuz_7
- Track 21 : ThulaThula_7, Phayonce_7
- Track 22 : Purky_7

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

The start number called the most often in the published annotations is 10, it was called in 53 of the 66 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adelaide_7, Arib1_7, Atcoo_7, Bartholomew_7, BigNuz_7, Bogie_7, Bran_7, Brusacoram_7, Bunnies_7, CactusJack_7, Camster_7, Dina_7, Donovan_7, Dynamo_7, FirstPlacePfu_7, Fishburne_7, Glaske_7, GreaseLightnin_7, HUHilltop_7, Jebeks_7, Jung_7, Juniormint_7, Kari_7, KilKor_7, Ksquared_7, Langerak_7, Lederberg_7, Majeke_7, Malithi_7, Mangethe_7, Megiddo_7, Nazo_7, Necropolis_7, Phalm_7, Phayonce_7, Phegasus_7, Polkaroo_7, Purky_7, Pygmy_7, SamW_7, Shipwreck_7, Sonah_7, StAB_7, StevieRay_7, Stiles_7, StressBall_7, Techage_7, Thespis_7, ThulaThula_7, Tortellini_7, Troy_7, Venti_7, Vidya_7, Willsammy_7, Xavia_7, Zilizebeth_7,

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

- Phineas_7,

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

- BBQValindra_7, BackstagePass_7, Bowser_7, Bunker_7, Coriander_8, DirtyBoi_8, Dmitri_8, Doggs_7, Eyes_7, GEazy_7, HannahD_7, Hedwig_8, Kiko_8, RayTheFireFly_8,

Summary by start number:

Start 7:

- Found in 59 of 71 (83.1%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Phineas_7 (P1),

Start 9:

- Found in 14 of 71 (19.7%) of genes in pham
- Manual Annotations of this start: 12 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BBQValindra_7 (DB), BackstagePass_7 (DB), Bowser_7 (DB), Bunker_7 (DB), Coriander_8 (DB), DirtyBoi_8 (DB), Dmitri_8 (DB), Doggs_7 (DB), Eyes_7 (DB), GEazy_7 (DB), HannahD_7 (DB), Hedwig_8 (DB), Kiko_8 (DB), RayTheFireFly_8 (DB),

Start 10:

- Found in 57 of 71 (80.3%) of genes in pham
- Manual Annotations of this start: 53 of 66
- Called 98.2% of time when present
- Phage (with cluster) where this start called: Adelaide_7 (EP), Arib1_7 (P1), Atcoo_7 (P1), Bartholomew_7 (P1), BigNuz_7 (P4), Bogie_7 (P1), Bran_7 (EP), Brusacoram_7 (P1), Bunnies_7 (P1), CactusJack_7 (P1), Camster_7 (P1), Dina_7 (EP), Donovan_7 (P1), Dynamo_7 (P1), FirstPlacePfu_7 (P1), Fishburne_7 (P1), Glaske_7 (P1), GreaseLightnin_7 (P1), HUHilltop_7 (P1), Jebeks_7 (P1), Jung_7 (P1), Juniormint_7 (P1), Kari_7 (P1), KilKor_7 (P1), Ksquared_7 (P1), Langerak_7 (P1), Lederberg_7 (EP), Majeke_7 (P1), Malithi_7 (P1), Mangethe_7 (P1), Megiddo_7 (P1), Nazo_7 (P4), Necropolis_7 (P1), Phalm_7 (P1), Phayonce_7 (P5), Phegasus_7 (P1), Polkaroo_7 (P1), Purky_7 (P6), Pygmy_7 (P1), SamW_7 (EP), Shipwreck_7 (P1), Sonah_7 (P1), StAB_7 (EP), StevieRay_7 (P1), Stiles_7 (EP), StressBall_7 (P1), Techage_7 (P1), Thespis_7 (P1), ThulaThula_7 (P5), Tortellini_7 (P2), Troy_7 (EP), Venti_7 (P1), Vidya_7 (P1), Willsammy_7 (P1), Xavia_7 (P3), Zilizebeth_7 (P1),

Summary by clusters:

There are 8 clusters represented in this pham: P2, P3, P1, P6, P4, P5, DB, EP,

Info for manual annotations of cluster DB:

- Start number 9 was manually annotated 12 times for cluster DB.

Info for manual annotations of cluster EP:

- Start number 10 was manually annotated 8 times for cluster EP.

Info for manual annotations of cluster P1:

- Start number 7 was manually annotated 1 time for cluster P1.
- Start number 10 was manually annotated 38 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 10 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 10 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 10 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 10 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 10 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Adelaide_7 Start: 6050, Stop: 6430, Start Num: 10

Candidate Starts for Adelaide_7:

(Start: 10 @6050 has 53 MA's), (13, 6104), (14, 6128), (16, 6161), (22, 6254), (27, 6365),

Gene: Arib1_7 Start: 6243, Stop: 6590, Start Num: 10

Candidate Starts for Arib1_7:

(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: Atcoo_7 Start: 6226, Stop: 6576, Start Num: 10

Candidate Starts for Atcoo_7:

(Start: 7 @6199 has 1 MA's), (8, 6202), (Start: 10 @6226 has 53 MA's), (17, 6355),

Gene: BBQValindra_7 Start: 6114, Stop: 6488, Start Num: 9

Candidate Starts for BBQValindra_7:

(1, 5490), (3, 5658), (5, 6033), (6, 6045), (Start: 7 @6090 has 1 MA's), (Start: 9 @6114 has 12 MA's), (11, 6129),

Gene: BackstagePass_7 Start: 6091, Stop: 6465, Start Num: 9

Candidate Starts for BackstagePass_7:

(Start: 7 @6067 has 1 MA's), (Start: 9 @6091 has 12 MA's), (11, 6106),

Gene: Bartholomew_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Bartholomew_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: BigNuz_7 Start: 6216, Stop: 6557, Start Num: 10

Candidate Starts for BigNuz_7:

(4, 6018), (Start: 7 @6189 has 1 MA's), (8, 6192), (Start: 10 @6216 has 53 MA's), (17, 6345),

Gene: Bogie_7 Start: 6226, Stop: 6576, Start Num: 10

Candidate Starts for Bogie_7:

(Start: 7 @6199 has 1 MA's), (8, 6202), (Start: 10 @6226 has 53 MA's), (17, 6355),

Gene: Bowser_7 Start: 6112, Stop: 6486, Start Num: 9

Candidate Starts for Bowser_7:

(Start: 7 @6088 has 1 MA's), (Start: 9 @6112 has 12 MA's), (11, 6127), (19, 6256),

Gene: Bran_7 Start: 6055, Stop: 6435, Start Num: 10

Candidate Starts for Bran_7:

(Start: 10 @6055 has 53 MA's), (13, 6109), (14, 6133), (15, 6157), (16, 6166), (22, 6259), (27, 6370),

Gene: Brusacoram_7 Start: 6225, Stop: 6575, Start Num: 10

Candidate Starts for Brusacoram_7:

(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: Bunker_7 Start: 6114, Stop: 6488, Start Num: 9

Candidate Starts for Bunker_7:

(1, 5490), (3, 5658), (5, 6033), (6, 6045), (Start: 7 @6090 has 1 MA's), (Start: 9 @6114 has 12 MA's), (11, 6129),

Gene: Bunnies_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Bunnies_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: CactusJack_7 Start: 6225, Stop: 6575, Start Num: 10

Candidate Starts for CactusJack_7:

(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: Camster_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Camster_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Coriander_8 Start: 6499, Stop: 6873, Start Num: 9

Candidate Starts for Coriander_8:

(5, 6418), (6, 6430), (Start: 7 @6475 has 1 MA's), (Start: 9 @6499 has 12 MA's), (12, 6523), (17, 6628), (26, 6784), (27, 6808),

Gene: Dina_7 Start: 6050, Stop: 6418, Start Num: 10

Candidate Starts for Dina_7:

(Start: 10 @6050 has 53 MA's), (13, 6104), (14, 6128), (15, 6152), (21, 6242), (23, 6248), (27, 6353),

Gene: DirtyBoi_8 Start: 6478, Stop: 6846, Start Num: 9

Candidate Starts for DirtyBoi_8:

(1, 5854), (3, 6022), (Start: 7 @6454 has 1 MA's), (Start: 9 @6478 has 12 MA's), (11, 6490), (25, 6724), (26, 6757), (27, 6781),

Gene: Dmitri_8 Start: 6478, Stop: 6855, Start Num: 9

Candidate Starts for Dmitri_8:

(1, 5854), (3, 6022), (Start: 7 @6454 has 1 MA's), (Start: 9 @6478 has 12 MA's), (11, 6490), (18, 6610), (25, 6733), (26, 6766), (27, 6790),

Gene: Doggs_7 Start: 6196, Stop: 6570, Start Num: 9

Candidate Starts for Doggs_7:

(5, 6115), (6, 6127), (Start: 7 @6172 has 1 MA's), (Start: 9 @6196 has 12 MA's), (12, 6220), (17, 6325), (26, 6481), (27, 6505),

Gene: Donovan_7 Start: 6243, Stop: 6590, Start Num: 10

Candidate Starts for Donovan_7:

(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: Dynamo_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Dynamo_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Eyes_7 Start: 6121, Stop: 6495, Start Num: 9

Candidate Starts for Eyes_7:

(3, 5665), (5, 6040), (6, 6052), (Start: 7 @6097 has 1 MA's), (Start: 9 @6121 has 12 MA's), (11, 6136), (19, 6265),

Gene: FirstPlacePfu_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for FirstPlacePfu_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Fishburne_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Fishburne_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: GEazy_7 Start: 6123, Stop: 6497, Start Num: 9

Candidate Starts for GEazy_7:

(5, 6042), (6, 6054), (Start: 7 @6099 has 1 MA's), (Start: 9 @6123 has 12 MA's), (11, 6138),

Gene: Glaske_7 Start: 6225, Stop: 6575, Start Num: 10

Candidate Starts for Glaske_7:

(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: GreaseLightnin_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for GreaseLightnin_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: HUHilltop_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for HUHilltop_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: HannahD_7 Start: 6123, Stop: 6497, Start Num: 9

Candidate Starts for HannahD_7:

(5, 6042), (6, 6054), (Start: 7 @6099 has 1 MA's), (Start: 9 @6123 has 12 MA's), (11, 6138),

Gene: Hedwig_8 Start: 6478, Stop: 6846, Start Num: 9

Candidate Starts for Hedwig_8:

(1, 5854), (3, 6022), (Start: 7 @6454 has 1 MA's), (Start: 9 @6478 has 12 MA's), (11, 6490), (25, 6724), (26, 6757), (27, 6781),

Gene: Jebeks_7 Start: 6243, Stop: 6590, Start Num: 10

Candidate Starts for Jebeks_7:

(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: Jung_7 Start: 6225, Stop: 6575, Start Num: 10

Candidate Starts for Jung_7:

(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: Juniormint_7 Start: 6246, Stop: 6593, Start Num: 10

Candidate Starts for Juniormint_7:

(2, 5763), (4, 6048), (Start: 7 @6219 has 1 MA's), (8, 6222), (Start: 10 @6246 has 53 MA's), (17, 6375),

Gene: Kari_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Kari_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Kiko_8 Start: 6339, Stop: 6689, Start Num: 9

Candidate Starts for Kiko_8:

(5, 6258), (Start: 7 @6315 has 1 MA's), (Start: 9 @6339 has 12 MA's), (11, 6351), (24, 6567), (26, 6600), (27, 6624),

Gene: KilKor_7 Start: 6225, Stop: 6575, Start Num: 10

Candidate Starts for KilKor_7:

(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: Ksquared_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Ksquared_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Langerak_7 Start: 6243, Stop: 6590, Start Num: 10

Candidate Starts for Langerak_7:

(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: Lederberg_7 Start: 6050, Stop: 6418, Start Num: 10

Candidate Starts for Lederberg_7:

(Start: 10 @6050 has 53 MA's), (13, 6104), (14, 6128), (15, 6152), (21, 6242), (23, 6248), (27, 6353),

Gene: Majeke_7 Start: 6243, Stop: 6590, Start Num: 10

Candidate Starts for Majeke_7:

(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: Malithi_7 Start: 6238, Stop: 6588, Start Num: 10
Candidate Starts for Malithi_7:
(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Mangethe_7 Start: 6243, Stop: 6590, Start Num: 10
Candidate Starts for Mangethe_7:
(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: Megiddo_7 Start: 6225, Stop: 6575, Start Num: 10
Candidate Starts for Megiddo_7:
(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: Nazo_7 Start: 6216, Stop: 6557, Start Num: 10
Candidate Starts for Nazo_7:
(4, 6018), (Start: 7 @6189 has 1 MA's), (8, 6192), (Start: 10 @6216 has 53 MA's), (17, 6345),

Gene: Necropolis_7 Start: 6238, Stop: 6588, Start Num: 10
Candidate Starts for Necropolis_7:
(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Phalm_7 Start: 6225, Stop: 6575, Start Num: 10
Candidate Starts for Phalm_7:
(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: Phayonce_7 Start: 6224, Stop: 6577, Start Num: 10
Candidate Starts for Phayonce_7:
(5, 6140), (8, 6200), (Start: 10 @6224 has 53 MA's), (11, 6239), (17, 6356),

Gene: Phegasus_7 Start: 6243, Stop: 6590, Start Num: 10
Candidate Starts for Phegasus_7:
(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: Phineas_7 Start: 6199, Stop: 6576, Start Num: 7
Candidate Starts for Phineas_7:
(Start: 7 @6199 has 1 MA's), (8, 6202), (Start: 10 @6226 has 53 MA's), (17, 6355),

Gene: Polkaroo_7 Start: 6238, Stop: 6588, Start Num: 10
Candidate Starts for Polkaroo_7:
(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Purky_7 Start: 6215, Stop: 6592, Start Num: 10
Candidate Starts for Purky_7:
(5, 6131), (8, 6191), (Start: 10 @6215 has 53 MA's), (17, 6344), (25, 6476), (26, 6509),

Gene: Pygmy_7 Start: 6226, Stop: 6576, Start Num: 10
Candidate Starts for Pygmy_7:
(Start: 7 @6199 has 1 MA's), (8, 6202), (Start: 10 @6226 has 53 MA's), (17, 6355),

Gene: RayTheFireFly_8 Start: 6505, Stop: 6879, Start Num: 9
Candidate Starts for RayTheFireFly_8:

(5, 6424), (6, 6436), (Start: 7 @6481 has 1 MA's), (Start: 9 @6505 has 12 MA's), (26, 6790), (27, 6814),

Gene: SamW_7 Start: 6050, Stop: 6418, Start Num: 10

Candidate Starts for SamW_7:

(Start: 10 @6050 has 53 MA's), (13, 6104), (14, 6128), (15, 6152), (21, 6242), (23, 6248), (27, 6353),

Gene: Shipwreck_7 Start: 6226, Stop: 6576, Start Num: 10

Candidate Starts for Shipwreck_7:

(Start: 7 @6199 has 1 MA's), (8, 6202), (Start: 10 @6226 has 53 MA's), (17, 6355),

Gene: Sonah_7 Start: 6243, Stop: 6590, Start Num: 10

Candidate Starts for Sonah_7:

(2, 5760), (4, 6045), (Start: 7 @6216 has 1 MA's), (8, 6219), (Start: 10 @6243 has 53 MA's), (17, 6372),

Gene: StAB_7 Start: 6055, Stop: 6423, Start Num: 10

Candidate Starts for StAB_7:

(Start: 10 @6055 has 53 MA's), (13, 6109), (14, 6133), (15, 6157), (16, 6166), (21, 6247), (23, 6253), (27, 6358),

Gene: StevieRay_7 Start: 6229, Stop: 6579, Start Num: 10

Candidate Starts for StevieRay_7:

(Start: 7 @6202 has 1 MA's), (8, 6205), (Start: 10 @6229 has 53 MA's), (17, 6358),

Gene: Stiles_7 Start: 6055, Stop: 6417, Start Num: 10

Candidate Starts for Stiles_7:

(Start: 10 @6055 has 53 MA's), (13, 6109), (14, 6133), (16, 6166), (21, 6241), (27, 6352),

Gene: StressBall_7 Start: 6225, Stop: 6575, Start Num: 10

Candidate Starts for StressBall_7:

(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: Techage_7 Start: 6246, Stop: 6593, Start Num: 10

Candidate Starts for Techage_7:

(2, 5763), (4, 6048), (Start: 7 @6219 has 1 MA's), (8, 6222), (Start: 10 @6246 has 53 MA's), (17, 6375),

Gene: Thespis_7 Start: 6225, Stop: 6575, Start Num: 10

Candidate Starts for Thespis_7:

(Start: 7 @6198 has 1 MA's), (8, 6201), (Start: 10 @6225 has 53 MA's), (17, 6354),

Gene: ThulaThula_7 Start: 6269, Stop: 6622, Start Num: 10

Candidate Starts for ThulaThula_7:

(5, 6185), (8, 6245), (Start: 10 @6269 has 53 MA's), (11, 6284), (17, 6401),

Gene: Tortellini_7 Start: 6196, Stop: 6534, Start Num: 10

Candidate Starts for Tortellini_7:

(5, 6112), (8, 6172), (Start: 10 @6196 has 53 MA's), (17, 6325), (20, 6367), (25, 6418), (26, 6451),

Gene: Troy_7 Start: 6050, Stop: 6418, Start Num: 10

Candidate Starts for Troy_7:

(Start: 10 @6050 has 53 MA's), (13, 6104), (14, 6128), (15, 6152), (21, 6242), (23, 6248), (27, 6353),

Gene: Venti_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Venti_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Vidya_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Vidya_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),

Gene: Willsammy_7 Start: 6228, Stop: 6578, Start Num: 10

Candidate Starts for Willsammy_7:

(Start: 7 @6201 has 1 MA's), (8, 6204), (Start: 10 @6228 has 53 MA's), (17, 6357),

Gene: Xavia_7 Start: 6240, Stop: 6590, Start Num: 10

Candidate Starts for Xavia_7:

(Start: 7 @6213 has 1 MA's), (8, 6216), (Start: 10 @6240 has 53 MA's), (17, 6369),

Gene: Zilizebeth_7 Start: 6238, Stop: 6588, Start Num: 10

Candidate Starts for Zilizebeth_7:

(Start: 7 @6211 has 1 MA's), (8, 6214), (Start: 10 @6238 has 53 MA's), (17, 6367),