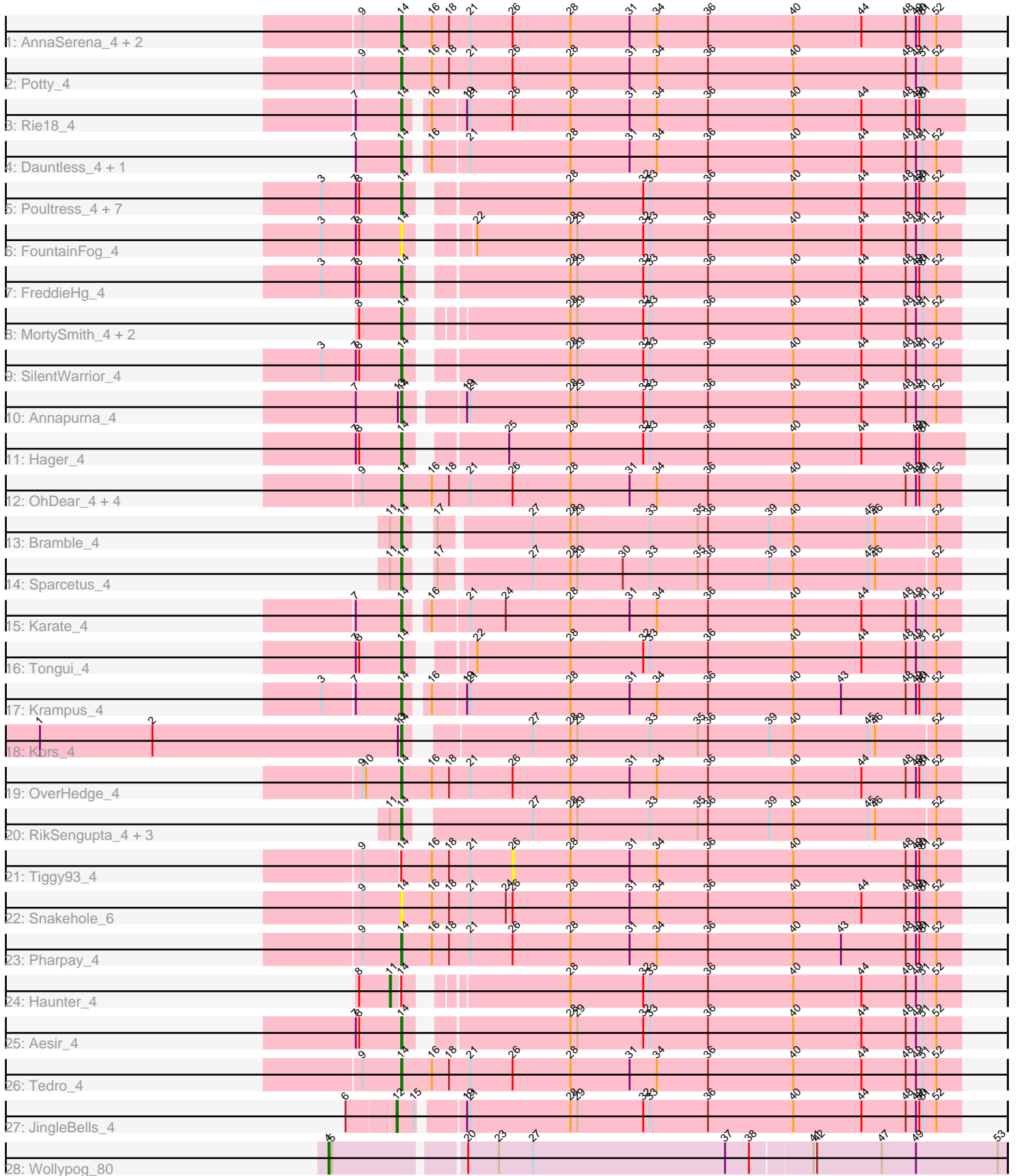


Pham 308797



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 308797 Report

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

Pham number 308797 has 47 members, 4 are drafts.

Phages represented in each track:

- Track 1 : AnnaSerena_4, Gilda_4, PhunaPhoke_4
- Track 2 : Potty_4
- Track 3 : Rie18_4
- Track 4 : Dauntless_4, Erudite_4
- Track 5 : Poultruss_4, Cybele_4, CoolCookie_4, Chivey_4, DannyDe_4, Neptune_4, Hiddenleaf_4, Artiphact_4
- Track 6 : FountainFog_4
- Track 7 : FreddieHg_4
- Track 8 : MortySmith_4, Crestdrop_4, JDawG_5
- Track 9 : SilentWarrior_4
- Track 10 : Annapurna_4
- Track 11 : Hager_4
- Track 12 : OhDear_4, Kate_4, NarutoRun_4, Rachella_4, Anakin_4
- Track 13 : Bramble_4
- Track 14 : Sparcetus_4
- Track 15 : Karate_4
- Track 16 : Tongui_4
- Track 17 : Krampus_4
- Track 18 : Kors_4
- Track 19 : OverHedge_4
- Track 20 : RikSengupta_4, LordBart_4, Ajin_4, TinyMiny_4
- Track 21 : Tiggy93_4
- Track 22 : Snakehole_6
- Track 23 : Pharpay_4
- Track 24 : Haunter_4
- Track 25 : Aesir_4
- Track 26 : Tedro_4
- Track 27 : JingleBells_4
- Track 28 : Wollypog_80

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

The start number called the most often in the published annotations is 14, it was called in 40 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir_4, Ajin_4, Anakin_4, AnnaSerena_4, Annapurna_4, Artiphact_4, Bramble_4, Chivey_4, CoolCookie_4, Crestdrop_4, Cybele_4, DannyDe_4, Dauntless_4, Erudite_4, FountainFog_4, FreddieHg_4, Gilda_4, Hager_4, Hiddenleaf_4, JDawG_5, Karate_4, Kate_4, Kors_4, Krampus_4, LordBart_4, MortySmith_4, NarutoRun_4, Neptune_4, OhDear_4, OverHedge_4, Pharpay_4, PhunaPhoke_4, Potty_4, Poultruss_4, Rachella_4, Rie18_4, RikSengupta_4, SilentWarrior_4, Snakehole_6, Sparcetus_4, Tedro_4, TinyMiny_4, Tongui_4,

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

- Haunter_4, Tiggy93_4,

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

- JingleBells_4, Wollypog_80,

Summary by start number:

Start 4:

- Found in 1 of 47 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog_80 (singleton),

Start 11:

- Found in 7 of 47 (14.9%) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Haunter_4 (EF),

Start 12:

- Found in 1 of 47 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JingleBells_4 (EF),

Start 14:

- Found in 45 of 47 (95.7%) of genes in pham
- Manual Annotations of this start: 40 of 43
- Called 95.6% of time when present
- Phage (with cluster) where this start called: Aesir_4 (EF), Ajin_4 (EF), Anakin_4 (EF), AnnaSerena_4 (EF), Annapurna_4 (EF), Artiphact_4 (EF), Bramble_4 (EF), Chivey_4 (EF), CoolCookie_4 (EF), Crestdrop_4 (EF), Cybele_4 (EF), DannyDe_4 (EF), Dauntless_4 (EF), Erudite_4 (EF), FountainFog_4 (EF), FreddieHg_4 (EF), Gilda_4 (EF), Hager_4 (EF), Hiddenleaf_4 (EF), JDawG_5 (EF), Karate_4 (EF), Kate_4 (EF), Kors_4 (EF), Krampus_4 (EF), LordBart_4 (EF), MortySmith_4 (EF), NarutoRun_4 (EF), Neptune_4 (EF), OhDear_4 (EF), OverHedge_4 (EF), Pharpay_4 (EF), PhunaPhoke_4 (EF), Potty_4 (EF), Poultruss_4 (EF), Rachella_4 (EF), Rie18_4 (EF), RikSengupta_4 (EF), SilentWarrior_4 (EF), Snakehole_6 (EF), Sparcetus_4 (EF), Tedro_4 (EF), TinyMiny_4 (EF), Tongui_4 (EF),

Start 26:

- Found in 15 of 47 (31.9%) of genes in pham

- No Manual Annotations of this start.
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Tiggy93_4 (EF),

Summary by clusters:

There are 2 clusters represented in this pham: singleton, EF,

Info for manual annotations of cluster EF:

- Start number 11 was manually annotated 1 time for cluster EF.
- Start number 12 was manually annotated 1 time for cluster EF.
- Start number 14 was manually annotated 40 times for cluster EF.

Gene Information:

Gene: Aesir_4 Start: 1263, Stop: 1730, Start Num: 14

Candidate Starts for Aesir_4:

(7, 1224), (8, 1227), (Start: 14 @1263 has 40 MA's), (28, 1389), (29, 1395), (32, 1452), (33, 1458), (36, 1509), (40, 1584), (44, 1644), (48, 1683), (49, 1692), (51, 1698), (52, 1710),

Gene: Ajin_4 Start: 1211, Stop: 1678, Start Num: 14

Candidate Starts for Ajin_4:

(Start: 11 @1202 has 1 MA's), (Start: 14 @1211 has 40 MA's), (27, 1307), (28, 1340), (29, 1346), (33, 1409), (35, 1451), (36, 1460), (39, 1514), (40, 1535), (45, 1601), (46, 1607), (52, 1658),

Gene: Anakin_4 Start: 1200, Stop: 1688, Start Num: 14

Candidate Starts for Anakin_4:

(9, 1170), (Start: 14 @1200 has 40 MA's), (16, 1227), (18, 1242), (21, 1260), (26, 1296), (28, 1347), (31, 1398), (34, 1422), (36, 1467), (40, 1542), (48, 1641), (49, 1650), (50, 1653), (51, 1656), (52, 1668),

Gene: AnnaSerena_4 Start: 1197, Stop: 1685, Start Num: 14

Candidate Starts for AnnaSerena_4:

(9, 1167), (Start: 14 @1197 has 40 MA's), (16, 1224), (18, 1239), (21, 1257), (26, 1293), (28, 1344), (31, 1395), (34, 1419), (36, 1464), (40, 1539), (44, 1599), (48, 1638), (49, 1647), (50, 1650), (51, 1653), (52, 1665),

Gene: Annapurna_4 Start: 1198, Stop: 1674, Start Num: 14

Candidate Starts for Annapurna_4:

(7, 1159), (13, 1195), (Start: 14 @1198 has 40 MA's), (19, 1243), (21, 1246), (28, 1333), (29, 1339), (32, 1396), (33, 1402), (36, 1453), (40, 1528), (44, 1588), (48, 1627), (49, 1636), (51, 1642), (52, 1654),

Gene: Artiphact_4 Start: 1197, Stop: 1664, Start Num: 14

Candidate Starts for Artiphact_4:

(3, 1128), (7, 1158), (8, 1161), (Start: 14 @1197 has 40 MA's), (28, 1323), (32, 1386), (33, 1392), (36, 1443), (40, 1518), (44, 1578), (48, 1617), (49, 1626), (50, 1629), (51, 1632), (52, 1644),

Gene: Bramble_4 Start: 1187, Stop: 1645, Start Num: 14

Candidate Starts for Bramble_4:

(Start: 11 @1178 has 1 MA's), (Start: 14 @1187 has 40 MA's), (17, 1199), (27, 1274), (28, 1307), (29, 1313), (33, 1376), (35, 1418), (36, 1427), (39, 1481), (40, 1502), (45, 1568), (46, 1574), (52, 1625),

Gene: Chivey_4 Start: 1186, Stop: 1653, Start Num: 14

Candidate Starts for Chivey_4:

(3, 1117), (7, 1147), (8, 1150), (Start: 14 @1186 has 40 MA's), (28, 1312), (32, 1375), (33, 1381), (36, 1432), (40, 1507), (44, 1567), (48, 1606), (49, 1615), (50, 1618), (51, 1621), (52, 1633),

Gene: CoolCookie_4 Start: 1200, Stop: 1667, Start Num: 14

Candidate Starts for CoolCookie_4:

(3, 1131), (7, 1161), (8, 1164), (Start: 14 @1200 has 40 MA's), (28, 1326), (32, 1389), (33, 1395), (36, 1446), (40, 1521), (44, 1581), (48, 1620), (49, 1629), (50, 1632), (51, 1635), (52, 1647),

Gene: Crestdrop_4 Start: 1195, Stop: 1656, Start Num: 14

Candidate Starts for Crestdrop_4:

(8, 1162), (Start: 14 @1195 has 40 MA's), (28, 1315), (29, 1321), (32, 1378), (33, 1384), (36, 1435), (40, 1510), (44, 1570), (48, 1609), (49, 1618), (51, 1624), (52, 1636),

Gene: Cybele_4 Start: 1186, Stop: 1653, Start Num: 14

Candidate Starts for Cybele_4:

(3, 1117), (7, 1147), (8, 1150), (Start: 14 @1186 has 40 MA's), (28, 1312), (32, 1375), (33, 1381), (36, 1432), (40, 1507), (44, 1567), (48, 1606), (49, 1615), (50, 1618), (51, 1621), (52, 1633),

Gene: DannyDe_4 Start: 1189, Stop: 1656, Start Num: 14

Candidate Starts for DannyDe_4:

(3, 1120), (7, 1150), (8, 1153), (Start: 14 @1189 has 40 MA's), (28, 1315), (32, 1378), (33, 1384), (36, 1435), (40, 1510), (44, 1570), (48, 1609), (49, 1618), (50, 1621), (51, 1624), (52, 1636),

Gene: Dauntless_4 Start: 1186, Stop: 1659, Start Num: 14

Candidate Starts for Dauntless_4:

(7, 1150), (Start: 14 @1186 has 40 MA's), (16, 1201), (21, 1231), (28, 1318), (31, 1369), (34, 1393), (36, 1438), (40, 1513), (44, 1573), (48, 1612), (49, 1621), (51, 1627), (52, 1639),

Gene: Erudite_4 Start: 1186, Stop: 1659, Start Num: 14

Candidate Starts for Erudite_4:

(7, 1150), (Start: 14 @1186 has 40 MA's), (16, 1201), (21, 1231), (28, 1318), (31, 1369), (34, 1393), (36, 1438), (40, 1513), (44, 1573), (48, 1612), (49, 1621), (51, 1627), (52, 1639),

Gene: FountainFog_4 Start: 1218, Stop: 1682, Start Num: 14

Candidate Starts for FountainFog_4:

(3, 1149), (7, 1179), (8, 1182), (Start: 14 @1218 has 40 MA's), (22, 1260), (28, 1341), (29, 1347), (32, 1404), (33, 1410), (36, 1461), (40, 1536), (44, 1596), (48, 1635), (49, 1644), (51, 1650), (52, 1662),

Gene: FreddieHg_4 Start: 1186, Stop: 1653, Start Num: 14

Candidate Starts for FreddieHg_4:

(3, 1117), (7, 1147), (8, 1150), (Start: 14 @1186 has 40 MA's), (28, 1312), (29, 1318), (32, 1375), (33, 1381), (36, 1432), (40, 1507), (44, 1567), (48, 1606), (49, 1615), (50, 1618), (51, 1621), (52, 1633),

Gene: Gilda_4 Start: 1188, Stop: 1676, Start Num: 14

Candidate Starts for Gilda_4:

(9, 1158), (Start: 14 @1188 has 40 MA's), (16, 1215), (18, 1230), (21, 1248), (26, 1284), (28, 1335), (31, 1386), (34, 1410), (36, 1455), (40, 1530), (44, 1590), (48, 1629), (49, 1638), (50, 1641), (51, 1644), (52, 1656),

Gene: Hager_4 Start: 1194, Stop: 1664, Start Num: 14

Candidate Starts for Hager_4:

(7, 1155), (8, 1158), (Start: 14 @1194 has 40 MA's), (25, 1266), (28, 1320), (32, 1383), (33, 1389), (36, 1440), (40, 1515), (44, 1575), (49, 1623), (50, 1626), (51, 1629),

Gene: Haunter_4 Start: 1171, Stop: 1638, Start Num: 11

Candidate Starts for Haunter_4:

(8, 1144), (Start: 11 @1171 has 1 MA's), (Start: 14 @1177 has 40 MA's), (28, 1297), (32, 1360), (33, 1366), (36, 1417), (40, 1492), (44, 1552), (48, 1591), (49, 1600), (51, 1606), (52, 1618),

Gene: Hiddenleaf_4 Start: 1186, Stop: 1653, Start Num: 14

Candidate Starts for Hiddenleaf_4:

(3, 1117), (7, 1147), (8, 1150), (Start: 14 @1186 has 40 MA's), (28, 1312), (32, 1375), (33, 1381), (36, 1432), (40, 1507), (44, 1567), (48, 1606), (49, 1615), (50, 1618), (51, 1621), (52, 1633),

Gene: JDawG_5 Start: 1263, Stop: 1724, Start Num: 14

Candidate Starts for JDawG_5:

(8, 1230), (Start: 14 @1263 has 40 MA's), (28, 1383), (29, 1389), (32, 1446), (33, 1452), (36, 1503), (40, 1578), (44, 1638), (48, 1677), (49, 1686), (51, 1692), (52, 1704),

Gene: JingleBells_4 Start: 1231, Stop: 1710, Start Num: 12

Candidate Starts for JingleBells_4:

(6, 1192), (Start: 12 @1231 has 1 MA's), (15, 1246), (19, 1279), (21, 1282), (28, 1369), (29, 1375), (32, 1432), (33, 1438), (36, 1489), (40, 1564), (44, 1624), (48, 1663), (49, 1672), (50, 1675), (51, 1678), (52, 1690),

Gene: Karate_4 Start: 1186, Stop: 1659, Start Num: 14

Candidate Starts for Karate_4:

(7, 1150), (Start: 14 @1186 has 40 MA's), (16, 1201), (21, 1231), (24, 1261), (28, 1318), (31, 1369), (34, 1393), (36, 1438), (40, 1513), (44, 1573), (48, 1612), (49, 1621), (51, 1627), (52, 1639),

Gene: Kate_4 Start: 1197, Stop: 1685, Start Num: 14

Candidate Starts for Kate_4:

(9, 1167), (Start: 14 @1197 has 40 MA's), (16, 1224), (18, 1239), (21, 1257), (26, 1293), (28, 1344), (31, 1395), (34, 1419), (36, 1464), (40, 1539), (48, 1638), (49, 1647), (50, 1650), (51, 1653), (52, 1665),

Gene: Kors_4 Start: 1290, Stop: 1754, Start Num: 14

Candidate Starts for Kors_4:

(1, 972), (2, 1071), (13, 1287), (Start: 14 @1290 has 40 MA's), (27, 1383), (28, 1416), (29, 1422), (33, 1485), (35, 1527), (36, 1536), (39, 1590), (40, 1611), (45, 1677), (46, 1683), (52, 1734),

Gene: Krampus_4 Start: 1197, Stop: 1670, Start Num: 14

Candidate Starts for Krampus_4:

(3, 1134), (7, 1161), (Start: 14 @1197 has 40 MA's), (16, 1212), (19, 1239), (21, 1242), (28, 1329), (31, 1380), (34, 1404), (36, 1449), (40, 1524), (43, 1566), (48, 1623), (49, 1632), (50, 1635), (51, 1638), (52, 1650),

Gene: LordBart_4 Start: 1211, Stop: 1678, Start Num: 14

Candidate Starts for LordBart_4:

(Start: 11 @1202 has 1 MA's), (Start: 14 @1211 has 40 MA's), (27, 1307), (28, 1340), (29, 1346), (33, 1409), (35, 1451), (36, 1460), (39, 1514), (40, 1535), (45, 1601), (46, 1607), (52, 1658),

Gene: MortySmith_4 Start: 1180, Stop: 1641, Start Num: 14

Candidate Starts for MortySmith_4:

(8, 1147), (Start: 14 @1180 has 40 MA's), (28, 1300), (29, 1306), (32, 1363), (33, 1369), (36, 1420), (40, 1495), (44, 1555), (48, 1594), (49, 1603), (51, 1609), (52, 1621),

Gene: NarutoRun_4 Start: 1200, Stop: 1688, Start Num: 14

Candidate Starts for NarutoRun_4:

(9, 1170), (Start: 14 @1200 has 40 MA's), (16, 1227), (18, 1242), (21, 1260), (26, 1296), (28, 1347), (31, 1398), (34, 1422), (36, 1467), (40, 1542), (48, 1641), (49, 1650), (50, 1653), (51, 1656), (52, 1668),

Gene: Neptune_4 Start: 1186, Stop: 1653, Start Num: 14

Candidate Starts for Neptune_4:

(3, 1117), (7, 1147), (8, 1150), (Start: 14 @1186 has 40 MA's), (28, 1312), (32, 1375), (33, 1381), (36, 1432), (40, 1507), (44, 1567), (48, 1606), (49, 1615), (50, 1618), (51, 1621), (52, 1633),

Gene: OhDear_4 Start: 1194, Stop: 1682, Start Num: 14

Candidate Starts for OhDear_4:

(9, 1164), (Start: 14 @1194 has 40 MA's), (16, 1221), (18, 1236), (21, 1254), (26, 1290), (28, 1341), (31, 1392), (34, 1416), (36, 1461), (40, 1536), (48, 1635), (49, 1644), (50, 1647), (51, 1650), (52, 1662),

Gene: OverHedge_4 Start: 1174, Stop: 1662, Start Num: 14

Candidate Starts for OverHedge_4:

(9, 1144), (10, 1147), (Start: 14 @1174 has 40 MA's), (16, 1201), (18, 1216), (21, 1234), (26, 1270), (28, 1321), (31, 1372), (34, 1396), (36, 1441), (40, 1516), (44, 1576), (48, 1615), (49, 1624), (50, 1627), (51, 1630), (52, 1642),

Gene: Pharpay_4 Start: 1197, Stop: 1685, Start Num: 14

Candidate Starts for Pharpay_4:

(9, 1167), (Start: 14 @1197 has 40 MA's), (16, 1224), (18, 1239), (21, 1257), (26, 1293), (28, 1344), (31, 1395), (34, 1419), (36, 1464), (40, 1539), (43, 1581), (48, 1638), (49, 1647), (50, 1650), (51, 1653), (52, 1665),

Gene: PhunaPhoke_4 Start: 1183, Stop: 1671, Start Num: 14

Candidate Starts for PhunaPhoke_4:

(9, 1153), (Start: 14 @1183 has 40 MA's), (16, 1210), (18, 1225), (21, 1243), (26, 1279), (28, 1330), (31, 1381), (34, 1405), (36, 1450), (40, 1525), (44, 1585), (48, 1624), (49, 1633), (50, 1636), (51, 1639), (52, 1651),

Gene: Potty_4 Start: 1188, Stop: 1676, Start Num: 14

Candidate Starts for Potty_4:

(9, 1158), (Start: 14 @1188 has 40 MA's), (16, 1215), (18, 1230), (21, 1248), (26, 1284), (28, 1335), (31, 1386), (34, 1410), (36, 1455), (40, 1530), (48, 1629), (49, 1638), (51, 1644), (52, 1656),

Gene: Poultruss_4 Start: 1189, Stop: 1659, Start Num: 14

Candidate Starts for Poultruss_4:

(3, 1120), (7, 1150), (8, 1153), (Start: 14 @1189 has 40 MA's), (28, 1315), (32, 1378), (33, 1384), (36, 1435), (40, 1510), (44, 1570), (48, 1609), (49, 1618), (50, 1621), (51, 1624), (52, 1636),

Gene: Rachella_4 Start: 1194, Stop: 1682, Start Num: 14

Candidate Starts for Rachella_4:

(9, 1164), (Start: 14 @1194 has 40 MA's), (16, 1221), (18, 1236), (21, 1254), (26, 1290), (28, 1341), (31, 1392), (34, 1416), (36, 1461), (40, 1536), (48, 1635), (49, 1644), (50, 1647), (51, 1650), (52, 1662),

Gene: Rie18_4 Start: 1189, Stop: 1665, Start Num: 14

Candidate Starts for Rie18_4:

(7, 1153), (Start: 14 @1189 has 40 MA's), (16, 1204), (19, 1231), (21, 1234), (26, 1270), (28, 1321), (31, 1372), (34, 1396), (36, 1441), (40, 1516), (44, 1576), (48, 1615), (49, 1624), (50, 1627), (51, 1630),

Gene: RikSengupta_4 Start: 1199, Stop: 1666, Start Num: 14

Candidate Starts for RikSengupta_4:

(Start: 11 @1190 has 1 MA's), (Start: 14 @1199 has 40 MA's), (27, 1295), (28, 1328), (29, 1334), (33, 1397), (35, 1439), (36, 1448), (39, 1502), (40, 1523), (45, 1589), (46, 1595), (52, 1646),

Gene: SilentWarrior_4 Start: 1189, Stop: 1656, Start Num: 14

Candidate Starts for SilentWarrior_4:

(3, 1120), (7, 1150), (8, 1153), (Start: 14 @1189 has 40 MA's), (28, 1315), (29, 1321), (32, 1378), (33, 1384), (36, 1435), (40, 1510), (44, 1570), (48, 1609), (49, 1618), (51, 1624), (52, 1636),

Gene: Snakehole_6 Start: 1260, Stop: 1748, Start Num: 14

Candidate Starts for Snakehole_6:

(9, 1230), (Start: 14 @1260 has 40 MA's), (16, 1287), (18, 1302), (21, 1320), (24, 1350), (26, 1356), (28, 1407), (31, 1458), (34, 1482), (36, 1527), (40, 1602), (44, 1662), (48, 1701), (49, 1710), (50, 1713), (51, 1716), (52, 1728),

Gene: Sparcetus_4 Start: 1190, Stop: 1648, Start Num: 14

Candidate Starts for Sparcetus_4:

(Start: 11 @1181 has 1 MA's), (Start: 14 @1190 has 40 MA's), (17, 1202), (27, 1277), (28, 1310), (29, 1316), (30, 1355), (33, 1379), (35, 1421), (36, 1430), (39, 1484), (40, 1505), (45, 1571), (46, 1577), (52, 1628),

Gene: Tedro_4 Start: 1194, Stop: 1682, Start Num: 14

Candidate Starts for Tedro_4:

(9, 1164), (Start: 14 @1194 has 40 MA's), (16, 1221), (18, 1236), (21, 1254), (26, 1290), (28, 1341), (31, 1392), (34, 1416), (36, 1461), (40, 1536), (44, 1596), (48, 1635), (49, 1644), (51, 1650), (52, 1662),

Gene: Tiggy93_4 Start: 1290, Stop: 1682, Start Num: 26

Candidate Starts for Tiggy93_4:

(9, 1164), (Start: 14 @1194 has 40 MA's), (16, 1221), (18, 1236), (21, 1254), (26, 1290), (28, 1341), (31, 1392), (34, 1416), (36, 1461), (40, 1536), (48, 1635), (49, 1644), (50, 1647), (51, 1650), (52, 1662),

Gene: TinyMiny_4 Start: 1211, Stop: 1678, Start Num: 14

Candidate Starts for TinyMiny_4:

(Start: 11 @1202 has 1 MA's), (Start: 14 @1211 has 40 MA's), (27, 1307), (28, 1340), (29, 1346), (33, 1409), (35, 1451), (36, 1460), (39, 1514), (40, 1535), (45, 1601), (46, 1607), (52, 1658),

Gene: Tongui_4 Start: 1227, Stop: 1691, Start Num: 14

Candidate Starts for Tongui_4:

(7, 1188), (8, 1191), (Start: 14 @1227 has 40 MA's), (22, 1269), (28, 1350), (32, 1413), (33, 1419), (36, 1470), (40, 1545), (44, 1605), (48, 1644), (49, 1653), (51, 1659), (52, 1671),

Gene: Wollypog_80 Start: 55671, Stop: 56246, Start Num: 4

Candidate Starts for Wollypog_80:

(Start: 4 @55671 has 1 MA's), (5, 55674), (20, 55779), (23, 55806), (27, 55836), (37, 56004), (38, 56025), (41, 56076), (42, 56079), (47, 56136), (49, 56166), (53, 56238),