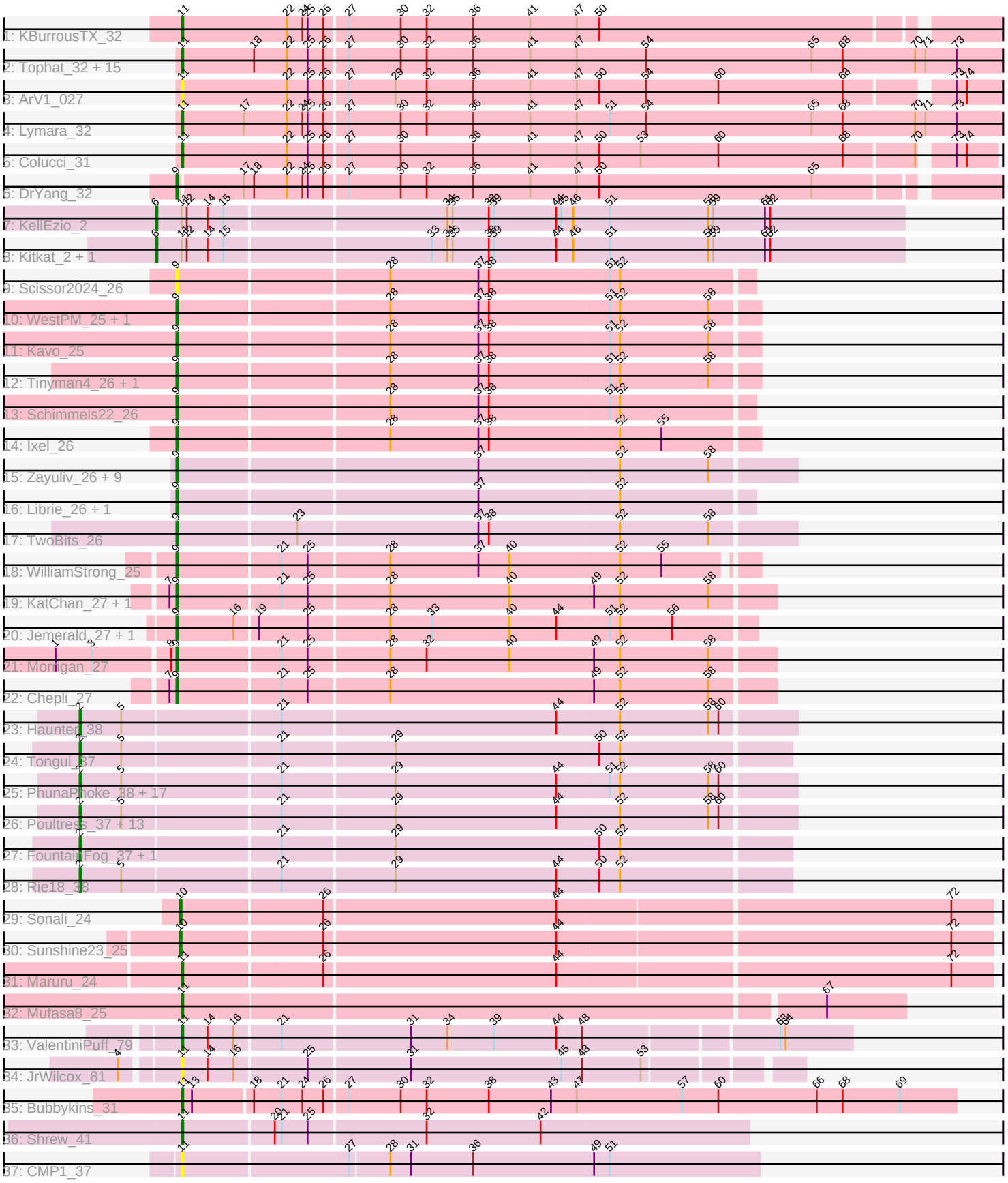
Pham 347462


1: KBurrousTX_32
2: Tophat_32 + 15
3: ArV1_027
4: Lymara_32
5: Colucci_31
6: DrYang_32
7: KellEzio_2
8: Kitkat_2 + 1
9: Scissor2024_26
10: WestPM_25 + 1
11: Kavo_25
12: Tinyman4_26 + 1
13: Schimmels22_26
14: Ixel_26
15: Zayuliv_26 + 9
16: Librie_26 + 1
17: TwoBits_26
18: WilliamStrong_25
19: KatChan_27 + 1
20: Jemerald_27 + 1
21: Morrigan_27
22: Chepli_27
23: Haunter_38
24: Tongui_37
25: PhunaPhoke_38 + 17
26: Poultress_37 + 13
27: FountainFog_37 + 1
28: Rie18_38
29: Sonali_24
30: Sunshine23_25
31: Maruru_24
32: Mufasa8_25
33: ValentiniPuff_79
34: JrWilcox_81
35: Bubbykins_31
36: Shrew_41
37: CMP1_37

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 347462 Report

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

Pham number 347462 has 98 members, 10 are drafts.

Phages represented in each track:
• Track 1 : KBurrousTX_32
• Track 2 : Tophat_32, Kabreeze_32, Chipper1996_320, Chubster_32, RosiePosie_32, EdgarPoe_32, Mordred_32, Conboy_32, JaNo_32, Linus_32, HumptyDumpty_32, Chocolat_32, Scavito_32, PrincessTrina_32, JayCookie_32, MoyaNatalis_32
• Track 3 : ArV1_027
• Track 4 : Lymara_32
• Track 5 : Colucci_31
• Track 6 : DrYang_32
• Track 7 : KellEzio_2
• Track 8 : Kitkat_2, BeatusComedenti_2
• Track 9 : Scissor2024_26
• Track 10 : WestPM_25, Penta_25
• Track 11 : Kavo_25
• Track 12 : Tinyman4_26, HerculesXL_26
• Track 13 : Schimmels22_26
• Track 14 : Ixel_26
• Track 15 : Zayuliv_26, Wardwill_28, LilTerminator_26, Zepp_27, Vafari_27, QuadZero_26, Fulton_26, GreenIvy_26, BaronJohn_26, Hasitha_26
• Track 16 : Librie_26, CaptainRex_26
• Track 17 : TwoBits_26
• Track 18 : WilliamStrong_25
• Track 19 : KatChan_27, Luna18_27
• Track 20 : Jemerald_27, Juicer_27
• Track 21 : Morrigan_27
• Track 22 : Chepli_27
• Track 23 : Haunter_38
• Track 24 : Tongui_37
• Track 25 : PhunaPhoke_38, Pharpay_38, Anakin_38, Neptune_38, Snakehole_38, OverHedge_38, Rachella_38, AnnaSerena_38, Potty_38, Tedro_38, Artiphact_38, Cybele_38, NarutoRun_38, Krampus_38, Gilda_38, CoolCookie_38, SafetyGuy_38, Tiggy93_38
• Track 26 : Poultress_37, DannyDe_37, Kate_38, Hiddenleaf_37, Crestdrop_37, MortySmith_36, SilentWarrior_37, OhDear_38, JingleBells_37, FreddieHg_37, Aesir_37, Annapurna_37, JDawG_37, Chivey_37
• Track 27 : FountainFog_37, Karate_37
• Track 28 : Rie18_38

• Track 29 : Sonali_24
• Track 30 : Sunshine23_25
• Track 31 : Maruru_24
• Track 32 : Mufasa8_25
• Track 33 : ValentiniPuff_79
• Track 34 : JrWilcox_81
• Track 35 : Bubbykins_31
• Track 36 : Shrew_41
• Track 37 : CMP1_37

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

The start number called the most often in the published annotations is 2, it was called in 34 of the 88 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aesir_37, Anakin_38, AnnaSerena_38, Annapurna_37, Artiphact_38, Chivey_37, CoolCookie_38, Crestdrop_37, Cybele_38, DannyDe_37, FountainFog_37, FreddieHg_37, Gilda_38, Haunter_38, Hiddenleaf_37, JDawG_37, JingleBells_37, Karate_37, Kate_38, Krampus_38, MortySmith_36, NarutoRun_38, Neptune_38, OhDear_38, OverHedge_38, Pharpay_38, PhunaPhoke_38, Potty_38, Poultress_37, Rachella_38, Rie18_38, SafetyGuy_38, SilentWarrior_37, Snakehole_38, Tedro_38, Tiggy93_38, Tongui_37,

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

Genes that do not have the "Most Annotated" start:
• ArV1_027, BaronJohn_26, BeatusComedenti_2, Bubbykins_31, CMP1_37, CaptainRex_26, Chepli_27, Chipper1996_320, Chocolat_32, Chubster_32, Colucci_31, Conboy_32, DrYang_32, EdgarPoe_32, Fulton_26, GreenIvy_26, Hasitha_26, HerculesXL_26, HumptyDumpty_32, Ixel_26, JaNo_32, JayCookie_32, Jemerald_27, JrWilcox_81, Juicer_27, KBurrousTX_32, Kabreeze_32, KatChan_27, Kavo_25, KellEzio_2, Kitkat_2, Librie_26, LilTerminator_26, Linus_32, Luna18_27, Lymara_32, Maruru_24, Mordred_32, Morrigan_27, MoyaNatalis_32, Mufasa8_25, Penta_25, PrincessTrina_32, QuadZero_26, RosiePosie_32, Scavito_32, Schimmels22_26, Scissor2024_26, Shrew_41, Sonali_24, Sunshine23_25, Tinyman4_26, Tophat_32, TwoBits_26, Vafari_27, ValentiniPuff_79, Wardwill_28, WestPM_25, WilliamStrong_25, Zayuliv_26, Zepp_27,

Summary by start number:

Start 2:
• Found in 37 of 98 (37.8%) of genes in pham
• Manual Annotations of this start: 34 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aesir_37 (EF), Anakin_38 (EF), AnnaSerena_38 (EF), Annapurna_37 (EF), Artiphact_38 (EF), Chivey_37 (EF), CoolCookie_38 (EF), Crestdrop_37 (EF), Cybele_38 (EF), DannyDe_37 (EF), FountainFog_37 (EF), FreddieHg_37 (EF), Gilda_38 (EF), Haunter_38 (EF),

Hiddenleaf_37 (EF), JDawG_37 (EF), JingleBells_37 (EF), Karate_37 (EF), Kate_38 (EF), Krampus_38 (EF), MortySmith_36 (EF), NarutoRun_38 (EF), Neptune_38 (EF), OhDear_38 (EF), OverHedge_38 (EF), Pharpay_38 (EF), PhunaPhoke_38 (EF), Potty_38 (EF), Poultress_37 (EF), Rachella_38 (EF), Rie18_38 (EF), SafetyGuy_38 (EF), SilentWarrior_37 (EF), Snakehole_38 (EF), Tedro_38 (EF), Tiggy93_38 (EF), Tongui_37 (EF),

Start 6:
• Found in 3 of 98 (3.1%) of genes in pham
• Manual Annotations of this start: 3 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BeatusComedenti_2 (AT), KellEzio_2 (AT), Kitkat_2 (AT),

Start 9:
• Found in 29 of 98 (29.6%) of genes in pham
• Manual Annotations of this start: 26 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BaronJohn_26 (EA5), CaptainRex_26 (EA5), Chepli_27 (EA6), DrYang_32 (AR), Fulton_26 (EA5), GreenIvy_26 (EA5), Hasitha_26 (EA5), HerculesXL_26 (EA11), Ixel_26 (EA11), Jemerald_27 (EA6), Juicer_27 (EA6), KatChan_27 (EA6), Kavo_25 (EA11), Librie_26 (EA5), LilTerminator_26 (EA5), Luna18_27 (EA6), Morrigan_27 (EA6), Penta_25 (EA11), QuadZero_26 (EA5), Schimmels22_26 (EA11), Scissor2024_26 (EA11), Tinyman4_26 (EA11), TwoBits_26 (EA5), Vafari_27 (EA5), Wardwill_28 (EA5), WestPM_25 (EA11), WilliamStrong_25 (EA6), Zayuliv_26 (EA5), Zepp_27 (EA5),

Start 10:
• Found in 2 of 98 (2.0%) of genes in pham
• Manual Annotations of this start: 2 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sonali_24 (FG), Sunshine23_25 (FG),

Start 11:
• Found in 30 of 98 (30.6%) of genes in pham
• Manual Annotations of this start: 23 of 88
• Called 90.0% of time when present
• Phage (with cluster) where this start called: ArV1_027 (AR), Bubbykins_31 (UNK), CMP1_37 (singleton), Chipper1996_320 (AR), Chocolat_32 (AR), Chubster_32 (AR), Colucci_31 (AR), Conboy_32 (AR), EdgarPoe_32 (AR), HumptyDumpty_32 (AR), JaNo_32 (AR), JayCookie_32 (AR), JrWilcox_81 (GL), KBurrousTX_32 (AR), Kabreeze_32 (AR), Linus_32 (AR), Lymara_32 (AR), Maruru_24 (FG), Mordred_32 (AR), MoyaNatalis_32 (AR), Mufasa8_25 (FG), PrincessTrina_32 (AR), RosiePosie_32 (AR), Scavito_32 (AR), Shrew_41 (singleton), Tophat_32 (AR), ValentiniPuff_79 (GL),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, UNK, EA11, EF, AR, AT, FG, GL, EA5, EA6,

Info for manual annotations of cluster AR:
•Start number 9 was manually annotated 1 time for cluster AR.

•Start number 11 was manually annotated 18 times for cluster AR.

Info for manual annotations of cluster AT:
•Start number 6 was manually annotated 3 times for cluster AT.

Info for manual annotations of cluster EA11:
•Start number 9 was manually annotated 6 times for cluster EA11.

Info for manual annotations of cluster EA5:
•Start number 9 was manually annotated 12 times for cluster EA5.

Info for manual annotations of cluster EA6:
•Start number 9 was manually annotated 7 times for cluster EA6.

Info for manual annotations of cluster EF:
•Start number 2 was manually annotated 34 times for cluster EF.

Info for manual annotations of cluster FG:
•Start number 10 was manually annotated 2 times for cluster FG.
•Start number 11 was manually annotated 2 times for cluster FG.

Info for manual annotations of cluster GL:
•Start number 11 was manually annotated 1 time for cluster GL.

Info for manual annotations of cluster UNK:
•Start number 11 was manually annotated 1 time for cluster UNK.

Gene Information:

Gene: Aesir_37 Start: 24476, Stop: 24877, Start Num: 2
Candidate Starts for Aesir_37:
(Start: 2 @24476 has 34 MA's), (5, 24500), (21, 24587), (29, 24650), (44, 24743), (52, 24779), (58, 24830), (60, 24836),

Gene: Anakin_38 Start: 24796, Stop: 25197, Start Num: 2
Candidate Starts for Anakin_38:
(Start: 2 @24796 has 34 MA's), (5, 24820), (21, 24907), (29, 24970), (44, 25063), (51, 25093), (52, 25099), (58, 25150), (60, 25156),

Gene: AnnaSerena_38 Start: 24831, Stop: 25232, Start Num: 2
Candidate Starts for AnnaSerena_38:
(Start: 2 @24831 has 34 MA's), (5, 24855), (21, 24942), (29, 25005), (44, 25098), (51, 25128), (52, 25134), (58, 25185), (60, 25191),

Gene: Annapurna_37 Start: 23938, Stop: 24339, Start Num: 2
Candidate Starts for Annapurna_37:
(Start: 2 @23938 has 34 MA's), (5, 23962), (21, 24049), (29, 24112), (44, 24205), (52, 24241), (58, 24292), (60, 24298),

Gene: ArV1_027 Start: 26868, Stop: 27326, Start Num: 11
Candidate Starts for ArV1_027:

(Start: 11 @26868 has 23 MA's), (22, 26928), (25, 26940), (26, 26949), (27, 26961), (29, 26988), (32, 27006), (36, 27033), (41, 27066), (47, 27093), (50, 27105), (54, 27132), (60, 27174), (68, 27246), (73, 27300), (74, 27306),

Gene: Artiphact_38 Start: 24820, Stop: 25221, Start Num: 2
Candidate Starts for Artiphact_38:
(Start: 2 @24820 has 34 MA's), (5, 24844), (21, 24931), (29, 24994), (44, 25087), (51, 25117), (52, 25123), (58, 25174), (60, 25180),

Gene: BaronJohn_26 Start: 19174, Stop: 19521, Start Num: 9
Candidate Starts for BaronJohn_26:
(Start: 9 @19174 has 26 MA's), (37, 19342), (52, 19423), (58, 19474),

Gene: BeatusComedenti_2 Start: 788, Stop: 1213, Start Num: 6
Candidate Starts for BeatusComedenti_2:
(Start: 6 @788 has 3 MA's), (Start: 11 @803 has 23 MA's), (12, 806), (14, 818), (15, 827), (33, 941), (34, 950), (35, 953), (38, 974), (39, 977), (44, 1013), (46, 1022), (51, 1043), (58, 1100), (59, 1103), (61, 1133), (62, 1136),

Gene: Bubbykins_31 Start: 25825, Stop: 26265, Start Num: 11
Candidate Starts for Bubbykins_31:
(Start: 11 @25825 has 23 MA's), (13, 25831), (18, 25864), (21, 25879), (24, 25891), (26, 25903), (27, 25915), (30, 25945), (32, 25960), (38, 25996), (43, 26032), (47, 26047), (57, 26107), (60, 26128), (66, 26185), (68, 26200), (69, 26233),

Gene: CMP1_37 Start: 36378, Stop: 36704, Start Num: 11
Candidate Starts for CMP1_37:
(Start: 11 @36378 has 23 MA's), (27, 36471), (28, 36492), (31, 36504), (36, 36540), (49, 36609), (51, 36618),

Gene: CaptainRex_26 Start: 18608, Stop: 18931, Start Num: 9
Candidate Starts for CaptainRex_26:
(Start: 9 @18608 has 26 MA's), (37, 18776), (52, 18857),

Gene: Chepli_27 Start: 19263, Stop: 19598, Start Num: 9
Candidate Starts for Chepli_27:
(7, 19260), (Start: 9 @19263 has 26 MA's), (21, 19320), (25, 19335), (28, 19380), (49, 19497), (52, 19512), (58, 19563),

Gene: Chipper1996_320 Start: 28217, Stop: 28687, Start Num: 11
Candidate Starts for Chipper1996_320:
(Start: 11 @28217 has 23 MA's), (18, 28259), (22, 28277), (25, 28289), (26, 28298), (27, 28310), (30, 28340), (32, 28355), (36, 28382), (41, 28415), (47, 28442), (54, 28481), (65, 28577), (68, 28595), (70, 28637), (71, 28643), (73, 28661),

Gene: Chivey_37 Start: 23887, Stop: 24288, Start Num: 2
Candidate Starts for Chivey_37:
(Start: 2 @23887 has 34 MA's), (5, 23911), (21, 23998), (29, 24061), (44, 24154), (52, 24190), (58, 24241), (60, 24247),

Gene: Chocolat_32 Start: 28217, Stop: 28687, Start Num: 11
Candidate Starts for Chocolat_32:

(Start: 11 @28217 has 23 MA's), (18, 28259), (22, 28277), (25, 28289), (26, 28298), (27, 28310), (30, 28340), (32, 28355), (36, 28382), (41, 28415), (47, 28442), (54, 28481), (65, 28577), (68, 28595), (70, 28637), (71, 28643), (73, 28661),

Gene: Chubster_32 Start: 27988, Stop: 28458, Start Num: 11
Candidate Starts for Chubster_32:
(Start: 11 @27988 has 23 MA's), (18, 28030), (22, 28048), (25, 28060), (26, 28069), (27, 28081), (30, 28111), (32, 28126), (36, 28153), (41, 28186), (47, 28213), (54, 28252), (65, 28348), (68, 28366), (70, 28408), (71, 28414), (73, 28432),

Gene: Colucci_31 Start: 27686, Stop: 28141, Start Num: 11
Candidate Starts for Colucci_31:
(Start: 11 @27686 has 23 MA's), (22, 27746), (25, 27758), (26, 27767), (27, 27779), (30, 27809), (36, 27851), (41, 27884), (47, 27911), (50, 27923), (53, 27947), (60, 27992), (68, 28064), (70, 28103), (73, 28118), (74, 28124),

Gene: Conboy_32 Start: 28216, Stop: 28686, Start Num: 11
Candidate Starts for Conboy_32:
(Start: 11 @28216 has 23 MA's), (18, 28258), (22, 28276), (25, 28288), (26, 28297), (27, 28309), (30, 28339), (32, 28354), (36, 28381), (41, 28414), (47, 28441), (54, 28480), (65, 28576), (68, 28594), (70, 28636), (71, 28642), (73, 28660),

Gene: CoolCookie_38 Start: 24826, Stop: 25227, Start Num: 2
Candidate Starts for CoolCookie_38:
(Start: 2 @24826 has 34 MA's), (5, 24850), (21, 24937), (29, 25000), (44, 25093), (51, 25123), (52, 25129), (58, 25180), (60, 25186),

Gene: Crestdrop_37 Start: 23798, Stop: 24199, Start Num: 2
Candidate Starts for Crestdrop_37:
(Start: 2 @23798 has 34 MA's), (5, 23822), (21, 23909), (29, 23972), (44, 24065), (52, 24101), (58, 24152), (60, 24158),

Gene: Cybele_38 Start: 24796, Stop: 25197, Start Num: 2
Candidate Starts for Cybele_38:
(Start: 2 @24796 has 34 MA's), (5, 24820), (21, 24907), (29, 24970), (44, 25063), (51, 25093), (52, 25099), (58, 25150), (60, 25156),

Gene: DannyDe_37 Start: 23893, Stop: 24294, Start Num: 2
Candidate Starts for DannyDe_37:
(Start: 2 @23893 has 34 MA's), (5, 23917), (21, 24004), (29, 24067), (44, 24160), (52, 24196), (58, 24247), (60, 24253),

Gene: DrYang_32 Start: 29312, Stop: 29767, Start Num: 9
Candidate Starts for DrYang_32:
(Start: 9 @29312 has 26 MA's), (17, 29348), (18, 29354), (22, 29372), (24, 29381), (25, 29384), (26, 29393), (27, 29405), (30, 29435), (32, 29450), (36, 29477), (41, 29510), (47, 29537), (50, 29549), (65, 29672),

Gene: EdgarPoe_32 Start: 28216, Stop: 28686, Start Num: 11
Candidate Starts for EdgarPoe_32:
(Start: 11 @28216 has 23 MA's), (18, 28258), (22, 28276), (25, 28288), (26, 28297), (27, 28309), (30, 28339), (32, 28354), (36, 28381), (41, 28414), (47, 28441), (54, 28480), (65, 28576), (68, 28594), (70, 28636), (71, 28642), (73, 28660),

Gene: FountainFog_37 Start: 24100, Stop: 24498, Start Num: 2
Candidate Starts for FountainFog_37:
(Start: 2 @24100 has 34 MA's), (21, 24211), (29, 24274), (50, 24391), (52, 24403),

Gene: FreddieHg_37 Start: 23903, Stop: 24304, Start Num: 2
Candidate Starts for FreddieHg_37:
(Start: 2 @23903 has 34 MA's), (5, 23927), (21, 24014), (29, 24077), (44, 24170), (52, 24206), (58, 24257), (60, 24263),

Gene: Fulton_26 Start: 18590, Stop: 18937, Start Num: 9
Candidate Starts for Fulton_26:
(Start: 9 @18590 has 26 MA's), (37, 18758), (52, 18839), (58, 18890),

Gene: Gilda_38 Start: 24820, Stop: 25221, Start Num: 2
Candidate Starts for Gilda_38:
(Start: 2 @24820 has 34 MA's), (5, 24844), (21, 24931), (29, 24994), (44, 25087), (51, 25117), (52, 25123), (58, 25174), (60, 25180),

Gene: GreenIvy_26 Start: 19176, Stop: 19523, Start Num: 9
Candidate Starts for GreenIvy_26:
(Start: 9 @19176 has 26 MA's), (37, 19344), (52, 19425), (58, 19476),

Gene: Hasitha_26 Start: 18602, Stop: 18949, Start Num: 9
Candidate Starts for Hasitha_26:
(Start: 9 @18602 has 26 MA's), (37, 18770), (52, 18851), (58, 18902),

Gene: Haunter_38 Start: 24212, Stop: 24613, Start Num: 2
Candidate Starts for Haunter_38:
(Start: 2 @24212 has 34 MA's), (5, 24236), (21, 24323), (44, 24479), (52, 24515), (58, 24566), (60, 24572),

Gene: HerculesXL_26 Start: 18674, Stop: 19000, Start Num: 9
Candidate Starts for HerculesXL_26:
(Start: 9 @18674 has 26 MA's), (28, 18791), (37, 18842), (38, 18848), (51, 18917), (52, 18923), (58, 18974),

Gene: Hiddenleaf_37 Start: 23887, Stop: 24288, Start Num: 2
Candidate Starts for Hiddenleaf_37:
(Start: 2 @23887 has 34 MA's), (5, 23911), (21, 23998), (29, 24061), (44, 24154), (52, 24190), (58, 24241), (60, 24247),

Gene: HumptyDumpty_32 Start: 28215, Stop: 28685, Start Num: 11
Candidate Starts for HumptyDumpty_32:
(Start: 11 @28215 has 23 MA's), (18, 28257), (22, 28275), (25, 28287), (26, 28296), (27, 28308), (30, 28338), (32, 28353), (36, 28380), (41, 28413), (47, 28440), (54, 28479), (65, 28575), (68, 28593), (70, 28635), (71, 28641), (73, 28659),

Gene: Ixel_26 Start: 18510, Stop: 18836, Start Num: 9
Candidate Starts for Ixel_26:
(Start: 9 @18510 has 26 MA's), (28, 18627), (37, 18678), (38, 18684), (52, 18759), (55, 18783),

Gene: JDawG_37 Start: 24471, Stop: 24872, Start Num: 2

Candidate Starts for JDawG_37:
(Start: 2 @24471 has 34 MA's), (5, 24495), (21, 24582), (29, 24645), (44, 24738), (52, 24774), (58, 24825), (60, 24831),

Gene: JaNo_32 Start: 28215, Stop: 28685, Start Num: 11
Candidate Starts for JaNo_32:
(Start: 11 @28215 has 23 MA's), (18, 28257), (22, 28275), (25, 28287), (26, 28296), (27, 28308), (30, 28338), (32, 28353), (36, 28380), (41, 28413), (47, 28440), (54, 28479), (65, 28575), (68, 28593), (70, 28635), (71, 28641), (73, 28659),

Gene: JayCookie_32 Start: 28218, Stop: 28688, Start Num: 11
Candidate Starts for JayCookie_32:
(Start: 11 @28218 has 23 MA's), (18, 28260), (22, 28278), (25, 28290), (26, 28299), (27, 28311), (30, 28341), (32, 28356), (36, 28383), (41, 28416), (47, 28443), (54, 28482), (65, 28578), (68, 28596), (70, 28638), (71, 28644), (73, 28662),

Gene: Jemerald_27 Start: 20196, Stop: 20519, Start Num: 9
Candidate Starts for Jemerald_27:
(Start: 9 @20196 has 26 MA's), (16, 20229), (19, 20241), (25, 20268), (28, 20313), (33, 20337), (40, 20382), (44, 20409), (51, 20439), (52, 20445), (56, 20475),

Gene: JingleBells_37 Start: 24008, Stop: 24409, Start Num: 2
Candidate Starts for JingleBells_37:
(Start: 2 @24008 has 34 MA's), (5, 24032), (21, 24119), (29, 24182), (44, 24275), (52, 24311), (58, 24362), (60, 24368),

Gene: JrWilcox_81 Start: 46199, Stop: 46537, Start Num: 11
Candidate Starts for JrWilcox_81:
(4, 46169), (Start: 11 @46199 has 23 MA's), (14, 46214), (16, 46229), (25, 46268), (31, 46325), (45, 46412), (48, 46424), (53, 46457),

Gene: Juicer_27 Start: 20196, Stop: 20519, Start Num: 9
Candidate Starts for Juicer_27:
(Start: 9 @20196 has 26 MA's), (16, 20229), (19, 20241), (25, 20268), (28, 20313), (33, 20337), (40, 20382), (44, 20409), (51, 20439), (52, 20445), (56, 20475),

Gene: KBurrousTX_32 Start: 29142, Stop: 29597, Start Num: 11
Candidate Starts for KBurrousTX_32:
(Start: 11 @29142 has 23 MA's), (22, 29202), (24, 29211), (25, 29214), (26, 29223), (27, 29235), (30, 29265), (32, 29280), (36, 29307), (41, 29340), (47, 29367), (50, 29379),

Gene: Kabreeze_32 Start: 28215, Stop: 28685, Start Num: 11
Candidate Starts for Kabreeze_32:
(Start: 11 @28215 has 23 MA's), (18, 28257), (22, 28275), (25, 28287), (26, 28296), (27, 28308), (30, 28338), (32, 28353), (36, 28380), (41, 28413), (47, 28440), (54, 28479), (65, 28575), (68, 28593), (70, 28635), (71, 28641), (73, 28659),

Gene: Karate_37 Start: 24819, Stop: 25217, Start Num: 2
Candidate Starts for Karate_37:
(Start: 2 @24819 has 34 MA's), (21, 24930), (29, 24993), (50, 25110), (52, 25122),

Gene: KatChan_27 Start: 19269, Stop: 19604, Start Num: 9
Candidate Starts for KatChan_27:

(7, 19266), (Start: 9 @19269 has 26 MA's), (21, 19326), (25, 19341), (28, 19386), (40, 19455), (49, 19503), (52, 19518), (58, 19569),

Gene: Kate_38 Start: 24828, Stop: 25229, Start Num: 2
Candidate Starts for Kate_38:
(Start: 2 @24828 has 34 MA's), (5, 24852), (21, 24939), (29, 25002), (44, 25095), (52, 25131), (58, 25182), (60, 25188),

Gene: Kavo_25 Start: 18510, Stop: 18836, Start Num: 9
Candidate Starts for Kavo_25:
(Start: 9 @18510 has 26 MA's), (28, 18627), (37, 18678), (38, 18684), (51, 18753), (52, 18759), (58, 18810),

Gene: KellEzio_2 Start: 788, Stop: 1213, Start Num: 6
Candidate Starts for KellEzio_2:
(Start: 6 @788 has 3 MA's), (Start: 11 @803 has 23 MA's), (12, 806), (14, 818), (15, 827), (34, 950), (35, 953), (38, 974), (39, 977), (44, 1013), (45, 1016), (46, 1022), (51, 1043), (58, 1100), (59, 1103), (61, 1133), (62, 1136),

Gene: Kitkat_2 Start: 788, Stop: 1213, Start Num: 6
Candidate Starts for Kitkat_2:
(Start: 6 @788 has 3 MA's), (Start: 11 @803 has 23 MA's), (12, 806), (14, 818), (15, 827), (33, 941), (34, 950), (35, 953), (38, 974), (39, 977), (44, 1013), (46, 1022), (51, 1043), (58, 1100), (59, 1103), (61, 1133), (62, 1136),

Gene: Krampus_38 Start: 24828, Stop: 25229, Start Num: 2
Candidate Starts for Krampus_38:
(Start: 2 @24828 has 34 MA's), (5, 24852), (21, 24939), (29, 25002), (44, 25095), (51, 25125), (52, 25131), (58, 25182), (60, 25188),

Gene: Librie_26 Start: 18608, Stop: 18931, Start Num: 9
Candidate Starts for Librie_26:
(Start: 9 @18608 has 26 MA's), (37, 18776), (52, 18857),

Gene: LilTerminator_26 Start: 18608, Stop: 18955, Start Num: 9
Candidate Starts for LilTerminator_26:
(Start: 9 @18608 has 26 MA's), (37, 18776), (52, 18857), (58, 18908),

Gene: Linus_32 Start: 28215, Stop: 28685, Start Num: 11
Candidate Starts for Linus_32:
(Start: 11 @28215 has 23 MA's), (18, 28257), (22, 28275), (25, 28287), (26, 28296), (27, 28308), (30, 28338), (32, 28353), (36, 28380), (41, 28413), (47, 28440), (54, 28479), (65, 28575), (68, 28593), (70, 28635), (71, 28641), (73, 28659),

Gene: Luna18_27 Start: 19269, Stop: 19604, Start Num: 9
Candidate Starts for Luna18_27:
(7, 19266), (Start: 9 @19269 has 26 MA's), (21, 19326), (25, 19341), (28, 19386), (40, 19455), (49, 19503), (52, 19518), (58, 19569),

Gene: Lymara_32 Start: 28213, Stop: 28683, Start Num: 11
Candidate Starts for Lymara_32:
(Start: 11 @28213 has 23 MA's), (17, 28249), (22, 28273), (24, 28282), (25, 28285), (26, 28294), (27, 28306), (30, 28336), (32, 28351), (36, 28378), (41, 28411), (47, 28438), (51, 28456), (54, 28477), (65,

28573), (68, 28591), (70, 28633), (71, 28639), (73, 28657),

Gene: Maruru_24 Start: 23469, Stop: 23924, Start Num: 11
Candidate Starts for Maruru_24:
(Start: 11 @23469 has 23 MA's), (26, 23547), (44, 23679), (72, 23901),

Gene: Mordred_32 Start: 28215, Stop: 28685, Start Num: 11
Candidate Starts for Mordred_32:
(Start: 11 @28215 has 23 MA's), (18, 28257), (22, 28275), (25, 28287), (26, 28296), (27, 28308), (30, 28338), (32, 28353), (36, 28380), (41, 28413), (47, 28440), (54, 28479), (65, 28575), (68, 28593), (70, 28635), (71, 28641), (73, 28659),

Gene: Morrigan_27 Start: 20156, Stop: 20491, Start Num: 9
Candidate Starts for Morrigan_27:
(1, 20090), (3, 20111), (8, 20153), (Start: 9 @20156 has 26 MA's), (21, 20213), (25, 20228), (28, 20273), (32, 20294), (40, 20342), (49, 20390), (52, 20405), (58, 20456),

Gene: MortySmith_36 Start: 23859, Stop: 24260, Start Num: 2
Candidate Starts for MortySmith_36:
(Start: 2 @23859 has 34 MA's), (5, 23883), (21, 23970), (29, 24033), (44, 24126), (52, 24162), (58, 24213), (60, 24219),

Gene: MoyaNatalis_32 Start: 28218, Stop: 28688, Start Num: 11
Candidate Starts for MoyaNatalis_32:
(Start: 11 @28218 has 23 MA's), (18, 28260), (22, 28278), (25, 28290), (26, 28299), (27, 28311), (30, 28341), (32, 28356), (36, 28383), (41, 28416), (47, 28443), (54, 28482), (65, 28578), (68, 28596), (70, 28638), (71, 28644), (73, 28662),

Gene: Mufasa8_25 Start: 23961, Stop: 24362, Start Num: 11
Candidate Starts for Mufasa8_25:
(Start: 11 @23961 has 23 MA's), (67, 24318),

Gene: NarutoRun_38 Start: 24796, Stop: 25197, Start Num: 2
Candidate Starts for NarutoRun_38:
(Start: 2 @24796 has 34 MA's), (5, 24820), (21, 24907), (29, 24970), (44, 25063), (51, 25093), (52, 25099), (58, 25150), (60, 25156),

Gene: Neptune_38 Start: 24796, Stop: 25197, Start Num: 2
Candidate Starts for Neptune_38:
(Start: 2 @24796 has 34 MA's), (5, 24820), (21, 24907), (29, 24970), (44, 25063), (51, 25093), (52, 25099), (58, 25150), (60, 25156),

Gene: OhDear_38 Start: 24794, Stop: 25195, Start Num: 2
Candidate Starts for OhDear_38:
(Start: 2 @24794 has 34 MA's), (5, 24818), (21, 24905), (29, 24968), (44, 25061), (52, 25097), (58, 25148), (60, 25154),

Gene: OverHedge_38 Start: 24786, Stop: 25187, Start Num: 2
Candidate Starts for OverHedge_38:
(Start: 2 @24786 has 34 MA's), (5, 24810), (21, 24897), (29, 24960), (44, 25053), (51, 25083), (52, 25089), (58, 25140), (60, 25146),

Gene: Penta_25 Start: 18508, Stop: 18834, Start Num: 9

Candidate Starts for Penta_25:
(Start: 9 @18508 has 26 MA's), (28, 18625), (37, 18676), (38, 18682), (51, 18751), (52, 18757), (58, 18808),

Gene: Pharpay_38 Start: 24841, Stop: 25242, Start Num: 2
Candidate Starts for Pharpay_38:
(Start: 2 @24841 has 34 MA's), (5, 24865), (21, 24952), (29, 25015), (44, 25108), (51, 25138), (52, 25144), (58, 25195), (60, 25201),

Gene: PhunaPhoke_38 Start: 24814, Stop: 25215, Start Num: 2
Candidate Starts for PhunaPhoke_38:
(Start: 2 @24814 has 34 MA's), (5, 24838), (21, 24925), (29, 24988), (44, 25081), (51, 25111), (52, 25117), (58, 25168), (60, 25174),

Gene: Potty_38 Start: 24819, Stop: 25220, Start Num: 2
Candidate Starts for Potty_38:
(Start: 2 @24819 has 34 MA's), (5, 24843), (21, 24930), (29, 24993), (44, 25086), (51, 25116), (52, 25122), (58, 25173), (60, 25179),

Gene: Poultress_37 Start: 25165, Stop: 25566, Start Num: 2
Candidate Starts for Poultress_37:
(Start: 2 @25165 has 34 MA's), (5, 25189), (21, 25276), (29, 25339), (44, 25432), (52, 25468), (58, 25519), (60, 25525),

Gene: PrincessTrina_32 Start: 28218, Stop: 28688, Start Num: 11
Candidate Starts for PrincessTrina_32:
(Start: 11 @28218 has 23 MA's), (18, 28260), (22, 28278), (25, 28290), (26, 28299), (27, 28311), (30, 28341), (32, 28356), (36, 28383), (41, 28416), (47, 28443), (54, 28482), (65, 28578), (68, 28596), (70, 28638), (71, 28644), (73, 28662),

Gene: QuadZero_26 Start: 18612, Stop: 18959, Start Num: 9
Candidate Starts for QuadZero_26:
(Start: 9 @18612 has 26 MA's), (37, 18780), (52, 18861), (58, 18912),

Gene: Rachella_38 Start: 24822, Stop: 25223, Start Num: 2
Candidate Starts for Rachella_38:
(Start: 2 @24822 has 34 MA's), (5, 24846), (21, 24933), (29, 24996), (44, 25089), (51, 25119), (52, 25125), (58, 25176), (60, 25182),

Gene: Rie18_38 Start: 24311, Stop: 24709, Start Num: 2
Candidate Starts for Rie18_38:
(Start: 2 @24311 has 34 MA's), (5, 24335), (21, 24422), (29, 24485), (44, 24578), (50, 24602), (52, 24614),

Gene: RosiePosie_32 Start: 28218, Stop: 28688, Start Num: 11
Candidate Starts for RosiePosie_32:
(Start: 11 @28218 has 23 MA's), (18, 28260), (22, 28278), (25, 28290), (26, 28299), (27, 28311), (30, 28341), (32, 28356), (36, 28383), (41, 28416), (47, 28443), (54, 28482), (65, 28578), (68, 28596), (70, 28638), (71, 28644), (73, 28662),

Gene: SafetyGuy_38 Start: 24802, Stop: 25203, Start Num: 2
Candidate Starts for SafetyGuy_38:

(Start: 2 @24802 has 34 MA's), (5, 24826), (21, 24913), (29, 24976), (44, 25069), (51, 25099), (52, 25105), (58, 25156), (60, 25162),

Gene: Scavito_32 Start: 28215, Stop: 28685, Start Num: 11
Candidate Starts for Scavito_32:
(Start: 11 @28215 has 23 MA's), (18, 28257), (22, 28275), (25, 28287), (26, 28296), (27, 28308), (30, 28338), (32, 28353), (36, 28380), (41, 28413), (47, 28440), (54, 28479), (65, 28575), (68, 28593), (70, 28635), (71, 28641), (73, 28659),

Gene: Schimmels22_26 Start: 19037, Stop: 19360, Start Num: 9
Candidate Starts for Schimmels22_26:
(Start: 9 @19037 has 26 MA's), (28, 19154), (37, 19205), (38, 19211), (51, 19280), (52, 19286),

Gene: Scissor2024_26 Start: 18673, Stop: 18996, Start Num: 9
Candidate Starts for Scissor2024_26:
(Start: 9 @18673 has 26 MA's), (28, 18790), (37, 18841), (38, 18847), (51, 18916), (52, 18922),

Gene: Shrew_41 Start: 15755, Stop: 16075, Start Num: 11
Candidate Starts for Shrew_41:
(Start: 11 @15755 has 23 MA's), (20, 15806), (21, 15809), (25, 15824), (32, 15890), (42, 15956),

Gene: SilentWarrior_37 Start: 23900, Stop: 24301, Start Num: 2
Candidate Starts for SilentWarrior_37:
(Start: 2 @23900 has 34 MA's), (5, 23924), (21, 24011), (29, 24074), (44, 24167), (52, 24203), (58, 24254), (60, 24260),

Gene: Snakehole_38 Start: 23999, Stop: 24400, Start Num: 2
Candidate Starts for Snakehole_38:
(Start: 2 @23999 has 34 MA's), (5, 24023), (21, 24110), (29, 24173), (44, 24266), (51, 24296), (52, 24302), (58, 24353), (60, 24359),

Gene: Sonali_24 Start: 24016, Stop: 24471, Start Num: 10
Candidate Starts for Sonali_24:
(Start: 10 @24016 has 2 MA's), (26, 24094), (44, 24226), (72, 24448),

Gene: Sunshine23_25 Start: 24033, Stop: 24488, Start Num: 10
Candidate Starts for Sunshine23_25:
(Start: 10 @24033 has 2 MA's), (26, 24111), (44, 24243), (72, 24465),

Gene: Tedro_38 Start: 24292, Stop: 24693, Start Num: 2
Candidate Starts for Tedro_38:
(Start: 2 @24292 has 34 MA's), (5, 24316), (21, 24403), (29, 24466), (44, 24559), (51, 24589), (52, 24595), (58, 24646), (60, 24652),

Gene: Tiggy93_38 Start: 24825, Stop: 25226, Start Num: 2
Candidate Starts for Tiggy93_38:
(Start: 2 @24825 has 34 MA's), (5, 24849), (21, 24936), (29, 24999), (44, 25092), (51, 25122), (52, 25128), (58, 25179), (60, 25185),

Gene: Tinyman4_26 Start: 18674, Stop: 19000, Start Num: 9
Candidate Starts for Tinyman4_26:
(Start: 9 @18674 has 26 MA's), (28, 18791), (37, 18842), (38, 18848), (51, 18917), (52, 18923), (58, 18974),

Gene: Tongui_37 Start: 24250, Stop: 24648, Start Num: 2
Candidate Starts for Tongui_37:
(Start: 2 @24250 has 34 MA's), (5, 24274), (21, 24361), (29, 24424), (50, 24541), (52, 24553),

Gene: Tophat_32 Start: 28217, Stop: 28687, Start Num: 11
Candidate Starts for Tophat_32:
(Start: 11 @28217 has 23 MA's), (18, 28259), (22, 28277), (25, 28289), (26, 28298), (27, 28310), (30, 28340), (32, 28355), (36, 28382), (41, 28415), (47, 28442), (54, 28481), (65, 28577), (68, 28595), (70, 28637), (71, 28643), (73, 28661),

Gene: TwoBits_26 Start: 18989, Stop: 19336, Start Num: 9
Candidate Starts for TwoBits_26:
(Start: 9 @18989 has 26 MA's), (23, 19055), (37, 19157), (38, 19163), (52, 19238), (58, 19289),

Gene: Vafari_27 Start: 18597, Stop: 18944, Start Num: 9
Candidate Starts for Vafari_27:
(Start: 9 @18597 has 26 MA's), (37, 18765), (52, 18846), (58, 18897),

Gene: ValentiniPuff_79 Start: 47112, Stop: 47483, Start Num: 11
Candidate Starts for ValentiniPuff_79:
(Start: 11 @47112 has 23 MA's), (14, 47127), (16, 47142), (21, 47166), (31, 47238), (34, 47259), (39, 47286), (44, 47322), (48, 47337), (63, 47442), (64, 47445),

Gene: Wardwill_28 Start: 18770, Stop: 19117, Start Num: 9
Candidate Starts for Wardwill_28:
(Start: 9 @18770 has 26 MA's), (37, 18938), (52, 19019), (58, 19070),

Gene: WestPM_25 Start: 18517, Stop: 18843, Start Num: 9
Candidate Starts for WestPM_25:
(Start: 9 @18517 has 26 MA's), (28, 18634), (37, 18685), (38, 18691), (51, 18760), (52, 18766), (58, 18817),

Gene: WilliamStrong_25 Start: 20264, Stop: 20584, Start Num: 9
Candidate Starts for WilliamStrong_25:
(Start: 9 @20264 has 26 MA's), (21, 20321), (25, 20336), (28, 20381), (37, 20432), (40, 20450), (52, 20513), (55, 20537),

Gene: Zayuliv_26 Start: 19198, Stop: 19545, Start Num: 9
Candidate Starts for Zayuliv_26:
(Start: 9 @19198 has 26 MA's), (37, 19366), (52, 19447), (58, 19498),

Gene: Zepp_27 Start: 18596, Stop: 18943, Start Num: 9
Candidate Starts for Zepp_27:
(Start: 9 @18596 has 26 MA's), (37, 18764), (52, 18845), (58, 18896),