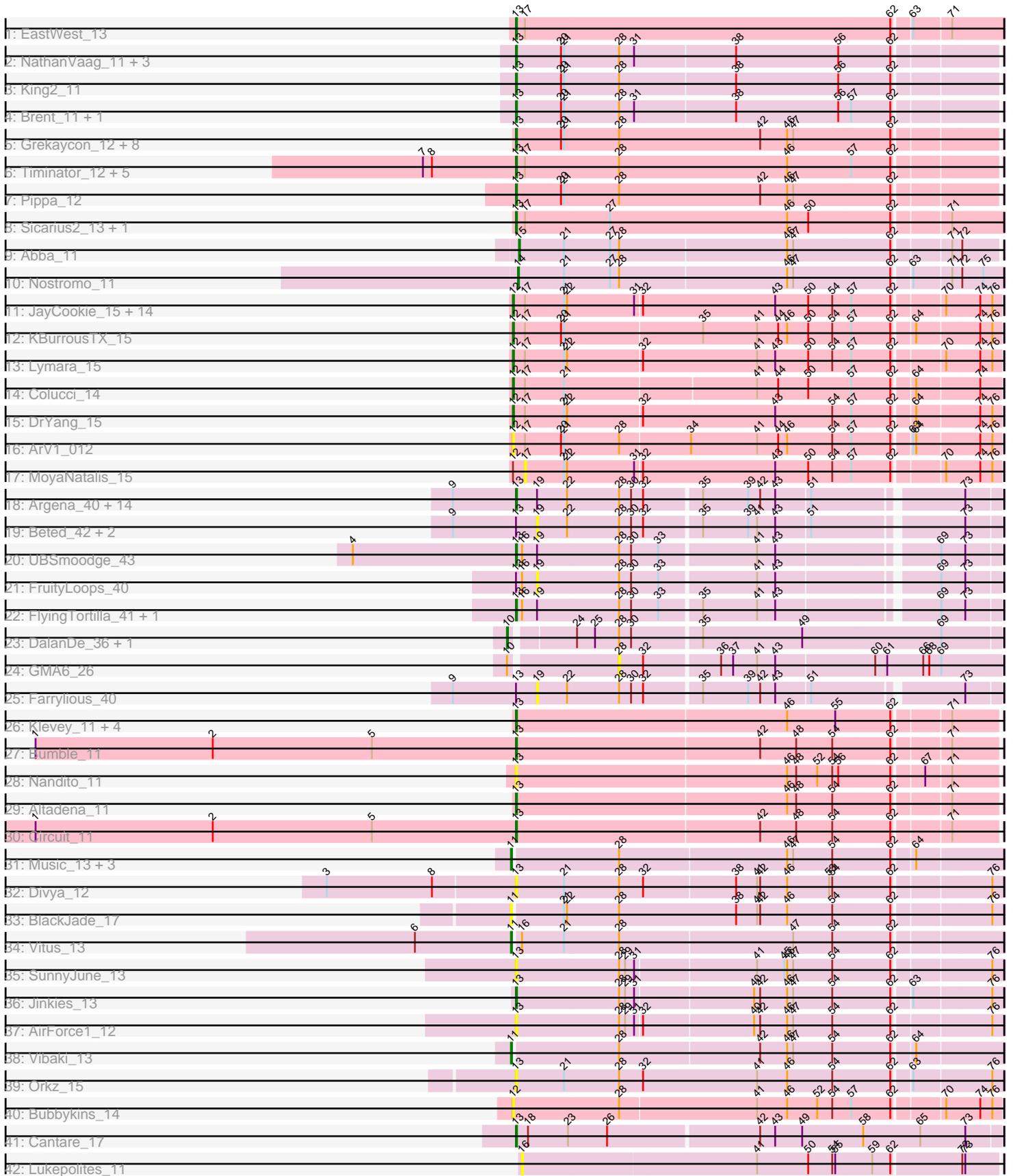Pham 282120

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 282120 Report

This analysis was run 02/23/26 on database version 636.

Pham number 282120 has 99 members, 30 are drafts.

Phages represented in each track:
• Track 1 : EastWest_13
• Track 2 : NathanVaag_11, Piccoletto_11, Beans_11, Jawnski_11
• Track 3 : King2_11
• Track 4 : Brent_11, Franzy_11
• Track 5 : Grekaycon_12, Shade_12, Zartrosa_12, Martha_12, JKerns_12, Sonny_12, Jordan_12, BossLady_12, TaeYoung_12
• Track 6 : Timinator_12, BarretLemon_12, GravityBall_12, LeeroyJ_12, BigDome_12, StevieBAY_12
• Track 7 : Pippa_12
• Track 8 : Sicarius2_13, Wyborn_13
• Track 9 : Abba_11
• Track 10 : Nostromo_11
• Track 11 : JayCookie_15, JaNo_15, Linus_15, HumptyDumpty_15, Chocolat_15, RosiePosie_15, Mordred_15, Conboy_15, Chubster_15, Chipper1996_150, EdgarPoe_15, Tophat_15, Scavito_15, Kabreeze_15, PrincessTrina_15
• Track 12 : KBurrousTX_15
• Track 13 : Lymara_15
• Track 14 : Colucci_14
• Track 15 : DrYang_15
• Track 16 : ArV1_012
• Track 17 : MoyaNatalis_15
• Track 18 : Argena_40, EmoNemo_40, Mikronejon_40, Hanem_42, Twin_40, Pakusa_40, Amoonguss_40, Schomber_41, MintFritos_40, Aloki_40, Toneprano_40, ChisanaKitsune_38, Gray_42, Chidiebere_42, Kabocha_43
• Track 19 : Beted_42, Oogie_42, Lenoshki_42
• Track 20 : UBSmoodge_43
• Track 21 : FruityLoops_40
• Track 22 : FlyingTortilla_41, ScarletRaider_41
• Track 23 : DalanDe_36, Thales_35
• Track 24 : GMA6_26
• Track 25 : Farrylious_40
• Track 26 : Klevey_11, Bolt007_11, CalWood4100_11, Prairie_11, Lilmac1015_11
• Track 27 : Bumble_11
• Track 28 : Nandito_11
• Track 29 : Altadena_11
• Track 30 : Circuit_11
• Track 31 : Music_13, GoldDust_13, Gooberta_13, Hirko_12

- Track 32 : Divya_12
- Track 33 : BlackJade_17
- Track 34 : Vitus_13
- Track 35 : SunnyJune_13
- Track 36 : Jinkies_13
- Track 37 : AirForce1_12
- Track 38 : Vibaki_13
- Track 39 : Orkz_15
- Track 40 : Bubbykins_14
- Track 41 : Cantare_17
- Track 42 : Lukepolites_11

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

The start number called the most often in the published annotations is 13, it was called in 43 of the 69 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- AirForce1_12, Aloki_40, Altadena_11, Amoonguss_40, Argena_40, BarretLemon_12, Beans_11, BigDome_12, Bolt007_11, BossLady_12, Brent_11, Bumble_11, CalWood4100_11, Cantare_17, Chidiebere_42, ChisanaKitsune_38, Circuit_11, Divya_12, EastWest_13, EmoNemo_40, FlyingTortilla_41, Franzy_11, GravityBall_12, Gray_42, Grekaycon_12, Hanem_42, JKerns_12, Jawnski_11, Jinkies_13, Jordan_12, Kabocha_43, King2_11, Klevey_11, LeeroyJ_12, Lilmac1015_11, Martha_12, Mikronejon_40, MintFritos_40, Nandito_11, NathanVaag_11, Orkz_15, Pakusa_40, Piccoletto_11, Pippa_12, Prairie_11, ScarletRaider_41, Schomber_41, Shade_12, Sicarius2_13, Sonny_12, StevieBAY_12, SunnyJune_13, TaeYoung_12, Timinator_12, Toneprano_40, Twin_40, UBSmoodge_43, Wyborn_13, Zartrosa_12,

Genes that have the "Most Annotated" start but do not call it:
- Beted_42, Farrylious_40, FruityLoops_40, Lenoshki_42, Oogie_42,

Genes that do not have the "Most Annotated" start:
- Abba_11, ArV1_012, BlackJade_17, Bubbykins_14, Chipper1996_150, Chocolat_15, Chubster_15, Colucci_14, Conboy_15, DalanDe_36, DrYang_15, EdgarPoe_15, GMA6_26, GoldDust_13, Gooberta_13, Hirko_12, HumptyDumpty_15, JaNo_15, JayCookie_15, KBurrousTX_15, Kabreeze_15, Linus_15, Lukepolites_11, Lymara_15, Mordred_15, MoyaNatalis_15, Music_13, Nostromo_11, PrincessTrina_15, RosiePosie_15, Scavito_15, Thales_35, Tophat_15, Vibaki_13, Vitus_13,

Summary by start number:

Start 10:
- Found in 3 of 99 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 69
- Called 66.7% of time when present
- Phage (with cluster) where this start called: DalanDe_36 (DQ), Thales_35 (DQ),

Start 11:
• Found in 7 of 99 (7.1%) of genes in pham
• Manual Annotations of this start: 4 of 69
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BlackJade_17 (FL), GoldDust_13 (FL), Gooberta_13 (FL), Hirko_12 (FL), Music_13 (FL), Vibaki_13 (FL), Vitus_13 (FL),

Start 12:
• Found in 22 of 99 (22.2%) of genes in pham
• Manual Annotations of this start: 19 of 69
• Called 95.5% of time when present
• Phage (with cluster) where this start called: ArV1_012 (AR), Bubbykins_14 (UNK), Chipper1996_150 (AR), Chocolat_15 (AR), Chubster_15 (AR), Colucci_14 (AR), Conboy_15 (AR), DrYang_15 (AR), EdgarPoe_15 (AR), HumptyDumpty_15 (AR), JaNo_15 (AR), JayCookie_15 (AR), KBurrousTX_15 (AR), Kabreeze_15 (AR), Linus_15 (AR), Lymara_15 (AR), Mordred_15 (AR), PrincessTrina_15 (AR), RosiePosie_15 (AR), Scavito_15 (AR), Tophat_15 (AR),

Start 13:
• Found in 64 of 99 (64.6%) of genes in pham
• Manual Annotations of this start: 43 of 69
• Called 92.2% of time when present
• Phage (with cluster) where this start called: AirForce1_12 (FL), Aloki_40 (DQ), Altadena_11 (FH), Amoonguss_40 (DQ), Argena_40 (DQ), BarretLemon_12 (AO2), Beans_11 (AO1), BigDome_12 (AO2), Bolt007_11 (FH), BossLady_12 (AO2), Brent_11 (AO1), Bumble_11 (FH), CalWood4100_11 (FH), Cantare_17 (singleton), Chidiebere_42 (DQ), ChisanaKitsune_38 (DQ), Circuit_11 (FH), Divya_12 (FL), EastWest_13 (AO), EmoNemo_40 (DQ), FlyingTortilla_41 (DQ), Franzy_11 (AO1), GravityBall_12 (AO2), Gray_42 (DQ), Grekaycon_12 (AO2), Hanem_42 (DQ), JKerns_12 (AO2), Jawnski_11 (AO1), Jinkies_13 (FL), Jordan_12 (AO2), Kabocha_43 (DQ), King2_11 (AO1), Klevey_11 (FH), LeeroyJ_12 (AO2), Lilmac1015_11 (FH), Martha_12 (AO2), Mikronejon_40 (DQ), MintFritos_40 (DQ), Nandito_11 (FH), NathanVaag_11 (AO1), Orkz_15 (FL), Pakusa_40 (DQ), Piccoletto_11 (AO1), Pippa_12 (AO2), Prairie_11 (FH), ScarletRaider_41 (DQ), Schomber_41 (DQ), Shade_12 (AO2), Sicarius2_13 (AO2), Sonny_12 (AO2), StevieBAY_12 (AO2), SunnyJune_13 (FL), TaeYoung_12 (AO2), Timinator_12 (AO2), Toneprano_40 (DQ), Twin_40 (DQ), UBSmoodge_43 (DQ), Wyborn_13 (AO2), Zartrosa_12 (AO2),

Start 14:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 69
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nostromo_11 (AO3),

Start 15:
• Found in 1 of 99 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 69
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abba_11 (AO3),

Start 16:
• Found in 6 of 99 (6.1%) of genes in pham

• No Manual Annotations of this start.
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Lukepolites_11 (singleton),

Start 17:
• Found in 30 of 99 (30.3%) of genes in pham
• No Manual Annotations of this start.
• Called 3.3% of time when present
• Phage (with cluster) where this start called: MoyaNatalis_15 (AR),

Start 19:
• Found in 23 of 99 (23.2%) of genes in pham
• No Manual Annotations of this start.
• Called 21.7% of time when present
• Phage (with cluster) where this start called: Beted_42 (DQ), Farrylious_40 (DQ), FruityLoops_40 (DQ), Lenoshki_42 (DQ), Oogie_42 (DQ),

Start 28:
• Found in 65 of 99 (65.7%) of genes in pham
• No Manual Annotations of this start.
• Called 1.5% of time when present
• Phage (with cluster) where this start called: GMA6_26 (DQ),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, AO, AR, AO3, AO2, AO1, FH, UNK, FL, DQ,

Info for manual annotations of cluster AO:
•Start number 13 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 13 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 13 was manually annotated 17 times for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 14 was manually annotated 1 time for cluster AO3.
•Start number 15 was manually annotated 1 time for cluster AO3.

Info for manual annotations of cluster AR:
•Start number 12 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster DQ:
•Start number 10 was manually annotated 1 time for cluster DQ.
•Start number 13 was manually annotated 9 times for cluster DQ.

Info for manual annotations of cluster FH:
•Start number 13 was manually annotated 7 times for cluster FH.

Info for manual annotations of cluster FL:
•Start number 11 was manually annotated 4 times for cluster FL.

•Start number 13 was manually annotated 1 time for cluster FL.

Gene Information:

Gene: Abba_11 Start: 9301, Stop: 9762, Start Num: 15
Candidate Starts for Abba_11:
(Start: 15 @9301 has 1 MA's), (21, 9346), (27, 9391), (28, 9400), (46, 9565), (47, 9571), (62, 9667), (71, 9718), (72, 9727),

Gene: AirForce1_12 Start: 8829, Stop: 9296, Start Num: 13
Candidate Starts for AirForce1_12:
(Start: 13 @8829 has 43 MA's), (28, 8931), (29, 8937), (31, 8946), (32, 8952), (40, 9060), (42, 9066), (46, 9093), (47, 9099), (54, 9138), (62, 9195), (76, 9285),

Gene: Aloki_40 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for Aloki_40:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32, 29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: Altadena_11 Start: 8980, Stop: 9444, Start Num: 13
Candidate Starts for Altadena_11:
(Start: 13 @8980 has 43 MA's), (46, 9247), (48, 9256), (54, 9292), (62, 9349), (71, 9400),

Gene: Amoonguss_40 Start: 29830, Stop: 30285, Start Num: 13
Candidate Starts for Amoonguss_40:
(9, 29767), (Start: 13 @29830 has 43 MA's), (19, 29851), (22, 29881), (28, 29932), (30, 29944), (32, 29956), (35, 30010), (39, 30055), (42, 30067), (43, 30082), (51, 30115), (73, 30253),

Gene: ArV1_012 Start: 9861, Stop: 10331, Start Num: 12
Candidate Starts for ArV1_012:
(Start: 12 @9861 has 19 MA's), (17, 9873), (20, 9909), (21, 9912), (28, 9966), (34, 10035), (41, 10101), (44, 10122), (46, 10131), (54, 10176), (57, 10194), (62, 10233), (63, 10248), (64, 10251), (74, 10311), (76, 10323),

Gene: Argena_40 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for Argena_40:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32, 29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: BarretLemon_12 Start: 9514, Stop: 9981, Start Num: 13
Candidate Starts for BarretLemon_12:
(7, 9421), (8, 9430), (Start: 13 @9514 has 43 MA's), (17, 9523), (28, 9616), (46, 9784), (57, 9847), (62, 9886),

Gene: Beans_11 Start: 9204, Stop: 9668, Start Num: 13
Candidate Starts for Beans_11:
(Start: 13 @9204 has 43 MA's), (20, 9249), (21, 9252), (28, 9306), (31, 9321), (38, 9420), (56, 9522), (62, 9573),

Gene: Beted_42 Start: 31528, Stop: 31962, Start Num: 19

Candidate Starts for Beted_42:
(9, 31444), (Start: 13 @31507 has 43 MA's), (19, 31528), (22, 31558), (28, 31609), (30, 31621), (32, 31633), (35, 31687), (39, 31732), (41, 31741), (43, 31759), (51, 31792), (73, 31930),

Gene: BigDome_12 Start: 9502, Stop: 9969, Start Num: 13
Candidate Starts for BigDome_12:
(7, 9409), (8, 9418), (Start: 13 @9502 has 43 MA's), (17, 9511), (28, 9604), (46, 9772), (57, 9835), (62, 9874),

Gene: BlackJade_17 Start: 11161, Stop: 11634, Start Num: 11
Candidate Starts for BlackJade_17:
(Start: 11 @11161 has 4 MA's), (21, 11209), (22, 11212), (28, 11263), (38, 11380), (41, 11401), (42, 11404), (46, 11431), (54, 11476), (62, 11533), (76, 11623),

Gene: Bolt007_11 Start: 8922, Stop: 9386, Start Num: 13
Candidate Starts for Bolt007_11:
(Start: 13 @8922 has 43 MA's), (46, 9189), (55, 9237), (62, 9291), (71, 9342),

Gene: BossLady_12 Start: 9517, Stop: 9984, Start Num: 13
Candidate Starts for BossLady_12:
(Start: 13 @9517 has 43 MA's), (20, 9562), (21, 9565), (28, 9619), (42, 9760), (46, 9787), (47, 9793), (62, 9889),

Gene: Brent_11 Start: 9186, Stop: 9650, Start Num: 13
Candidate Starts for Brent_11:
(Start: 13 @9186 has 43 MA's), (20, 9231), (21, 9234), (28, 9288), (31, 9303), (38, 9402), (56, 9504), (57, 9516), (62, 9555),

Gene: Bubbykins_14 Start: 11072, Stop: 11542, Start Num: 12
Candidate Starts for Bubbykins_14:
(Start: 12 @11072 has 19 MA's), (28, 11177), (41, 11312), (46, 11342), (52, 11372), (54, 11387), (57, 11405), (62, 11444), (70, 11489), (74, 11522), (76, 11534),

Gene: Bumble_11 Start: 8987, Stop: 9451, Start Num: 13
Candidate Starts for Bumble_11:
(1, 8507), (2, 8684), (5, 8843), (Start: 13 @8987 has 43 MA's), (42, 9227), (48, 9263), (54, 9299), (62, 9356), (71, 9407),

Gene: CalWood4100_11 Start: 8905, Stop: 9369, Start Num: 13
Candidate Starts for CalWood4100_11:
(Start: 13 @8905 has 43 MA's), (46, 9172), (55, 9220), (62, 9274), (71, 9325),

Gene: Cantare_17 Start: 16184, Stop: 16657, Start Num: 13
Candidate Starts for Cantare_17:
(Start: 13 @16184 has 43 MA's), (18, 16196), (23, 16235), (26, 16274), (42, 16421), (43, 16436), (49, 16463), (58, 16523), (65, 16580), (73, 16625),

Gene: Chidiebere_42 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for Chidiebere_42:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32, 29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: Chipper1996_150 Start: 11510, Stop: 11980, Start Num: 12

Candidate Starts for Chipper1996_150:
(Start: 12 @11510 has 19 MA's), (17, 11522), (21, 11561), (22, 11564), (31, 11630), (32, 11636), (43, 11768), (50, 11801), (54, 11825), (57, 11843), (62, 11882), (70, 11927), (74, 11960), (76, 11972),

Gene: ChisanaKitsune_38 Start: 28618, Stop: 29073, Start Num: 13
Candidate Starts for ChisanaKitsune_38:
(9, 28555), (Start: 13 @28618 has 43 MA's), (19, 28639), (22, 28669), (28, 28720), (30, 28732), (32, 28744), (35, 28798), (39, 28843), (42, 28855), (43, 28870), (51, 28903), (73, 29041),

Gene: Chocolat_15 Start: 11511, Stop: 11981, Start Num: 12
Candidate Starts for Chocolat_15:
(Start: 12 @11511 has 19 MA's), (17, 11523), (21, 11562), (22, 11565), (31, 11631), (32, 11637), (43, 11769), (50, 11802), (54, 11826), (57, 11844), (62, 11883), (70, 11928), (74, 11961), (76, 11973),

Gene: Chubster_15 Start: 11281, Stop: 11751, Start Num: 12
Candidate Starts for Chubster_15:
(Start: 12 @11281 has 19 MA's), (17, 11293), (21, 11332), (22, 11335), (31, 11401), (32, 11407), (43, 11539), (50, 11572), (54, 11596), (57, 11614), (62, 11653), (70, 11698), (74, 11731), (76, 11743),

Gene: Circuit_11 Start: 8973, Stop: 9437, Start Num: 13
Candidate Starts for Circuit_11:
(1, 8493), (2, 8670), (5, 8829), (Start: 13 @8973 has 43 MA's), (42, 9213), (48, 9249), (54, 9285), (62, 9342), (71, 9393),

Gene: Colucci_14 Start: 11015, Stop: 11482, Start Num: 12
Candidate Starts for Colucci_14:
(Start: 12 @11015 has 19 MA's), (17, 11027), (21, 11066), (41, 11252), (44, 11273), (50, 11303), (57, 11345), (62, 11384), (64, 11402), (74, 11462),

Gene: Conboy_15 Start: 11509, Stop: 11979, Start Num: 12
Candidate Starts for Conboy_15:
(Start: 12 @11509 has 19 MA's), (17, 11521), (21, 11560), (22, 11563), (31, 11629), (32, 11635), (43, 11767), (50, 11800), (54, 11824), (57, 11842), (62, 11881), (70, 11926), (74, 11959), (76, 11971),

Gene: DalanDe_36 Start: 32484, Stop: 32954, Start Num: 10
Candidate Starts for DalanDe_36:
(Start: 10 @32484 has 1 MA's), (24, 32541), (25, 32559), (28, 32583), (30, 32595), (35, 32661), (49, 32760), (69, 32898),

Gene: Divya_12 Start: 8715, Stop: 9185, Start Num: 13
Candidate Starts for Divya_12:
(3, 8532), (8, 8637), (Start: 13 @8715 has 43 MA's), (21, 8763), (28, 8817), (32, 8841), (38, 8931), (41, 8952), (42, 8955), (46, 8982), (53, 9024), (54, 9027), (62, 9084), (76, 9174),

Gene: DrYang_15 Start: 11464, Stop: 11934, Start Num: 12
Candidate Starts for DrYang_15:
(Start: 12 @11464 has 19 MA's), (17, 11476), (21, 11515), (22, 11518), (32, 11590), (43, 11722), (54, 11779), (57, 11797), (62, 11836), (64, 11854), (74, 11914), (76, 11926),

Gene: EastWest_13 Start: 9545, Stop: 10018, Start Num: 13
Candidate Starts for EastWest_13:
(Start: 13 @9545 has 43 MA's), (17, 9554), (62, 9917), (63, 9932), (71, 9968),

Gene: EdgarPoe_15 Start: 11509, Stop: 11979, Start Num: 12
Candidate Starts for EdgarPoe_15:
(Start: 12 @11509 has 19 MA's), (17, 11521), (21, 11560), (22, 11563), (31, 11629), (32, 11635), (43, 11767), (50, 11800), (54, 11824), (57, 11842), (62, 11881), (70, 11926), (74, 11959), (76, 11971),

Gene: EmoNemo_40 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for EmoNemo_40:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32, 29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: Farrylious_40 Start: 29624, Stop: 30058, Start Num: 19
Candidate Starts for Farrylious_40:
(9, 29540), (Start: 13 @29603 has 43 MA's), (19, 29624), (22, 29654), (28, 29705), (30, 29717), (32, 29729), (35, 29783), (39, 29828), (42, 29840), (43, 29855), (51, 29888), (73, 30026),

Gene: FlyingTortilla_41 Start: 32692, Stop: 33147, Start Num: 13
Candidate Starts for FlyingTortilla_41:
(Start: 13 @32692 has 43 MA's), (16, 32698), (19, 32713), (28, 32794), (30, 32806), (33, 32833), (35, 32872), (41, 32926), (43, 32944), (69, 33091), (73, 33115),

Gene: Franzy_11 Start: 9186, Stop: 9650, Start Num: 13
Candidate Starts for Franzy_11:
(Start: 13 @9186 has 43 MA's), (20, 9231), (21, 9234), (28, 9288), (31, 9303), (38, 9402), (56, 9504), (57, 9516), (62, 9555),

Gene: FruityLoops_40 Start: 32727, Stop: 33161, Start Num: 19
Candidate Starts for FruityLoops_40:
(Start: 13 @32706 has 43 MA's), (16, 32712), (19, 32727), (28, 32808), (30, 32820), (33, 32847), (41, 32940), (43, 32958), (69, 33105), (73, 33129),

Gene: GMA6_26 Start: 20625, Stop: 20996, Start Num: 28
Candidate Starts for GMA6_26:
(Start: 10 @20523 has 1 MA's), (28, 20625), (32, 20649), (36, 20721), (37, 20733), (41, 20757), (43, 20775), (60, 20871), (61, 20883), (66, 20919), (68, 20925), (69, 20937),

Gene: GoldDust_13 Start: 11102, Stop: 11572, Start Num: 11
Candidate Starts for GoldDust_13:
(Start: 11 @11102 has 4 MA's), (28, 11204), (46, 11369), (47, 11375), (54, 11414), (62, 11471), (64, 11489),

Gene: Gooberta_13 Start: 11102, Stop: 11572, Start Num: 11
Candidate Starts for Gooberta_13:
(Start: 11 @11102 has 4 MA's), (28, 11204), (46, 11369), (47, 11375), (54, 11414), (62, 11471), (64, 11489),

Gene: GravityBall_12 Start: 9513, Stop: 9980, Start Num: 13
Candidate Starts for GravityBall_12:
(7, 9420), (8, 9429), (Start: 13 @9513 has 43 MA's), (17, 9522), (28, 9615), (46, 9783), (57, 9846), (62, 9885),

Gene: Gray_42 Start: 29828, Stop: 30283, Start Num: 13
Candidate Starts for Gray_42:

(9, 29765), (Start: 13 @29828 has 43 MA's), (19, 29849), (22, 29879), (28, 29930), (30, 29942), (32, 29954), (35, 30008), (39, 30053), (42, 30065), (43, 30080), (51, 30113), (73, 30251),

Gene: Grekaycon_12 Start: 9526, Stop: 9993, Start Num: 13
Candidate Starts for Grekaycon_12:
(Start: 13 @9526 has 43 MA's), (20, 9571), (21, 9574), (28, 9628), (42, 9769), (46, 9796), (47, 9802), (62, 9898),

Gene: Hanem_42 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for Hanem_42:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32, 29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: Hirko_12 Start: 10525, Stop: 10995, Start Num: 11
Candidate Starts for Hirko_12:
(Start: 11 @10525 has 4 MA's), (28, 10627), (46, 10792), (47, 10798), (54, 10837), (62, 10894), (64, 10912),

Gene: HumptyDumpty_15 Start: 11508, Stop: 11978, Start Num: 12
Candidate Starts for HumptyDumpty_15:
(Start: 12 @11508 has 19 MA's), (17, 11520), (21, 11559), (22, 11562), (31, 11628), (32, 11634), (43, 11766), (50, 11799), (54, 11823), (57, 11841), (62, 11880), (70, 11925), (74, 11958), (76, 11970),

Gene: JKerns_12 Start: 9553, Stop: 10020, Start Num: 13
Candidate Starts for JKerns_12:
(Start: 13 @9553 has 43 MA's), (20, 9598), (21, 9601), (28, 9655), (42, 9796), (46, 9823), (47, 9829), (62, 9925),

Gene: JaNo_15 Start: 11508, Stop: 11978, Start Num: 12
Candidate Starts for JaNo_15:
(Start: 12 @11508 has 19 MA's), (17, 11520), (21, 11559), (22, 11562), (31, 11628), (32, 11634), (43, 11766), (50, 11799), (54, 11823), (57, 11841), (62, 11880), (70, 11925), (74, 11958), (76, 11970),

Gene: Jawnski_11 Start: 9199, Stop: 9663, Start Num: 13
Candidate Starts for Jawnski_11:
(Start: 13 @9199 has 43 MA's), (20, 9244), (21, 9247), (28, 9301), (31, 9316), (38, 9415), (56, 9517), (62, 9568),

Gene: JayCookie_15 Start: 11511, Stop: 11981, Start Num: 12
Candidate Starts for JayCookie_15:
(Start: 12 @11511 has 19 MA's), (17, 11523), (21, 11562), (22, 11565), (31, 11631), (32, 11637), (43, 11769), (50, 11802), (54, 11826), (57, 11844), (62, 11883), (70, 11928), (74, 11961), (76, 11973),

Gene: Jinkies_13 Start: 9830, Stop: 10297, Start Num: 13
Candidate Starts for Jinkies_13:
(Start: 13 @9830 has 43 MA's), (28, 9932), (29, 9938), (31, 9947), (40, 10061), (42, 10067), (46, 10094), (47, 10100), (54, 10139), (62, 10196), (63, 10211), (76, 10286),

Gene: Jordan_12 Start: 9523, Stop: 9990, Start Num: 13
Candidate Starts for Jordan_12:
(Start: 13 @9523 has 43 MA's), (20, 9568), (21, 9571), (28, 9625), (42, 9766), (46, 9793), (47, 9799), (62, 9895),

Gene: KBurrousTX_15 Start: 11282, Stop: 11752, Start Num: 12
Candidate Starts for KBurrousTX_15:
(Start: 12 @11282 has 19 MA's), (17, 11294), (20, 11330), (21, 11333), (35, 11468), (41, 11522), (44, 11543), (46, 11552), (50, 11573), (54, 11597), (57, 11615), (62, 11654), (64, 11672), (74, 11732), (76, 11744),

Gene: Kabocha_43 Start: 30640, Stop: 31095, Start Num: 13
Candidate Starts for Kabocha_43:
(9, 30577), (Start: 13 @30640 has 43 MA's), (19, 30661), (22, 30691), (28, 30742), (30, 30754), (32, 30766), (35, 30820), (39, 30865), (42, 30877), (43, 30892), (51, 30925), (73, 31063),

Gene: Kabreeze_15 Start: 11508, Stop: 11978, Start Num: 12
Candidate Starts for Kabreeze_15:
(Start: 12 @11508 has 19 MA's), (17, 11520), (21, 11559), (22, 11562), (31, 11628), (32, 11634), (43, 11766), (50, 11799), (54, 11823), (57, 11841), (62, 11880), (70, 11925), (74, 11958), (76, 11970),

Gene: King2_11 Start: 9188, Stop: 9652, Start Num: 13
Candidate Starts for King2_11:
(Start: 13 @9188 has 43 MA's), (20, 9233), (21, 9236), (28, 9290), (38, 9404), (56, 9506), (62, 9557),

Gene: Klevey_11 Start: 8915, Stop: 9379, Start Num: 13
Candidate Starts for Klevey_11:
(Start: 13 @8915 has 43 MA's), (46, 9182), (55, 9230), (62, 9284), (71, 9335),

Gene: LeeroyJ_12 Start: 9513, Stop: 9980, Start Num: 13
Candidate Starts for LeeroyJ_12:
(7, 9420), (8, 9429), (Start: 13 @9513 has 43 MA's), (17, 9522), (28, 9615), (46, 9783), (57, 9846), (62, 9885),

Gene: Lenoshki_42 Start: 31528, Stop: 31962, Start Num: 19
Candidate Starts for Lenoshki_42:
(9, 31444), (Start: 13 @31507 has 43 MA's), (19, 31528), (22, 31558), (28, 31609), (30, 31621), (32, 31633), (35, 31687), (39, 31732), (41, 31741), (43, 31759), (51, 31792), (73, 31930),

Gene: Lilmac1015_11 Start: 8905, Stop: 9369, Start Num: 13
Candidate Starts for Lilmac1015_11:
(Start: 13 @8905 has 43 MA's), (46, 9172), (55, 9220), (62, 9274), (71, 9325),

Gene: Linus_15 Start: 11508, Stop: 11978, Start Num: 12
Candidate Starts for Linus_15:
(Start: 12 @11508 has 19 MA's), (17, 11520), (21, 11559), (22, 11562), (31, 11628), (32, 11634), (43, 11766), (50, 11799), (54, 11823), (57, 11841), (62, 11880), (70, 11925), (74, 11958), (76, 11970),

Gene: Lukepolites_11 Start: 9217, Stop: 9681, Start Num: 16
Candidate Starts for Lukepolites_11:
(16, 9217), (41, 9448), (50, 9499), (54, 9523), (55, 9526), (59, 9562), (62, 9580), (72, 9646), (73, 9649),

Gene: Lymara_15 Start: 11510, Stop: 11980, Start Num: 12
Candidate Starts for Lymara_15:
(Start: 12 @11510 has 19 MA's), (17, 11522), (21, 11561), (22, 11564), (32, 11636), (41, 11750), (43, 11768), (50, 11801), (54, 11825), (57, 11843), (62, 11882), (70, 11927), (74, 11960), (76, 11972),

Gene: Martha_12 Start: 9464, Stop: 9931, Start Num: 13

Candidate Starts for Martha_12:
(Start: 13 @9464 has 43 MA's), (20, 9509), (21, 9512), (28, 9566), (42, 9707), (46, 9734), (47, 9740),
(62, 9836),

Gene: Mikronejon_40 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for Mikronejon_40:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32,
29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: MintFritos_40 Start: 29828, Stop: 30283, Start Num: 13
Candidate Starts for MintFritos_40:
(9, 29765), (Start: 13 @29828 has 43 MA's), (19, 29849), (22, 29879), (28, 29930), (30, 29942), (32,
29954), (35, 30008), (39, 30053), (42, 30065), (43, 30080), (51, 30113), (73, 30251),

Gene: Mordred_15 Start: 11508, Stop: 11978, Start Num: 12
Candidate Starts for Mordred_15:
(Start: 12 @11508 has 19 MA's), (17, 11520), (21, 11559), (22, 11562), (31, 11628), (32, 11634), (43,
11766), (50, 11799), (54, 11823), (57, 11841), (62, 11880), (70, 11925), (74, 11958), (76, 11970),

Gene: MoyaNatalis_15 Start: 11523, Stop: 11981, Start Num: 17
Candidate Starts for MoyaNatalis_15:
(Start: 12 @11511 has 19 MA's), (17, 11523), (21, 11562), (22, 11565), (31, 11631), (32, 11637), (43,
11769), (50, 11802), (54, 11826), (57, 11844), (62, 11883), (70, 11928), (74, 11961), (76, 11973),

Gene: Music_13 Start: 10972, Stop: 11442, Start Num: 11
Candidate Starts for Music_13:
(Start: 11 @10972 has 4 MA's), (28, 11074), (46, 11239), (47, 11245), (54, 11284), (62, 11341), (64,
11359),

Gene: Nandito_11 Start: 8929, Stop: 9393, Start Num: 13
Candidate Starts for Nandito_11:
(Start: 13 @8929 has 43 MA's), (46, 9196), (48, 9205), (52, 9226), (54, 9241), (56, 9247), (62, 9298),
(67, 9325), (71, 9349),

Gene: NathanVaag_11 Start: 9192, Stop: 9656, Start Num: 13
Candidate Starts for NathanVaag_11:
(Start: 13 @9192 has 43 MA's), (20, 9237), (21, 9240), (28, 9294), (31, 9309), (38, 9408), (56, 9510),
(62, 9561),

Gene: Nostromo_11 Start: 9503, Stop: 9970, Start Num: 14
Candidate Starts for Nostromo_11:
(Start: 14 @9503 has 1 MA's), (21, 9548), (27, 9593), (28, 9602), (46, 9767), (47, 9773), (62, 9869),
(63, 9884), (71, 9920), (72, 9929), (75, 9950),

Gene: Oogie_42 Start: 31554, Stop: 31988, Start Num: 19
Candidate Starts for Oogie_42:
(9, 31470), (Start: 13 @31533 has 43 MA's), (19, 31554), (22, 31584), (28, 31635), (30, 31647), (32,
31659), (35, 31713), (39, 31758), (41, 31767), (43, 31785), (51, 31818), (73, 31956),

Gene: Orkz_15 Start: 9588, Stop: 10061, Start Num: 13
Candidate Starts for Orkz_15:
(Start: 13 @9588 has 43 MA's), (21, 9636), (28, 9690), (32, 9714), (41, 9828), (46, 9858), (54, 9903),
(62, 9960), (63, 9975), (76, 10050),

Gene: Pakusa_40 Start: 29569, Stop: 30024, Start Num: 13
Candidate Starts for Pakusa_40:
(9, 29506), (Start: 13 @29569 has 43 MA's), (19, 29590), (22, 29620), (28, 29671), (30, 29683), (32, 29695), (35, 29749), (39, 29794), (42, 29806), (43, 29821), (51, 29854), (73, 29992),

Gene: Piccoletto_11 Start: 9193, Stop: 9657, Start Num: 13
Candidate Starts for Piccoletto_11:
(Start: 13 @9193 has 43 MA's), (20, 9238), (21, 9241), (28, 9295), (31, 9310), (38, 9409), (56, 9511), (62, 9562),

Gene: Pippa_12 Start: 9563, Stop: 10030, Start Num: 13
Candidate Starts for Pippa_12:
(Start: 13 @9563 has 43 MA's), (20, 9608), (21, 9611), (28, 9665), (42, 9806), (46, 9833), (47, 9839), (62, 9935),

Gene: Prairie_11 Start: 8912, Stop: 9376, Start Num: 13
Candidate Starts for Prairie_11:
(Start: 13 @8912 has 43 MA's), (46, 9179), (55, 9227), (62, 9281), (71, 9332),

Gene: PrincessTrina_15 Start: 11511, Stop: 11981, Start Num: 12
Candidate Starts for PrincessTrina_15:
(Start: 12 @11511 has 19 MA's), (17, 11523), (21, 11562), (22, 11565), (31, 11631), (32, 11637), (43, 11769), (50, 11802), (54, 11826), (57, 11844), (62, 11883), (70, 11928), (74, 11961), (76, 11973),

Gene: RosiePosie_15 Start: 11511, Stop: 11981, Start Num: 12
Candidate Starts for RosiePosie_15:
(Start: 12 @11511 has 19 MA's), (17, 11523), (21, 11562), (22, 11565), (31, 11631), (32, 11637), (43, 11769), (50, 11802), (54, 11826), (57, 11844), (62, 11883), (70, 11928), (74, 11961), (76, 11973),

Gene: ScarletRaider_41 Start: 32719, Stop: 33174, Start Num: 13
Candidate Starts for ScarletRaider_41:
(Start: 13 @32719 has 43 MA's), (16, 32725), (19, 32740), (28, 32821), (30, 32833), (33, 32860), (35, 32899), (41, 32953), (43, 32971), (69, 33118), (73, 33142),

Gene: Scavito_15 Start: 11508, Stop: 11978, Start Num: 12
Candidate Starts for Scavito_15:
(Start: 12 @11508 has 19 MA's), (17, 11520), (21, 11559), (22, 11562), (31, 11628), (32, 11634), (43, 11766), (50, 11799), (54, 11823), (57, 11841), (62, 11880), (70, 11925), (74, 11958), (76, 11970),

Gene: Schomber_41 Start: 29577, Stop: 30032, Start Num: 13
Candidate Starts for Schomber_41:
(9, 29514), (Start: 13 @29577 has 43 MA's), (19, 29598), (22, 29628), (28, 29679), (30, 29691), (32, 29703), (35, 29757), (39, 29802), (42, 29814), (43, 29829), (51, 29862), (73, 30000),

Gene: Shade_12 Start: 9502, Stop: 9969, Start Num: 13
Candidate Starts for Shade_12:
(Start: 13 @9502 has 43 MA's), (20, 9547), (21, 9550), (28, 9604), (42, 9745), (46, 9772), (47, 9778), (62, 9874),

Gene: Sicarius2_13 Start: 10002, Stop: 10475, Start Num: 13
Candidate Starts for Sicarius2_13:

(Start: 13 @10002 has 43 MA's), (17, 10011), (27, 10095), (46, 10272), (50, 10293), (62, 10374), (71, 10425),

Gene: Sonny_12 Start: 9523, Stop: 9990, Start Num: 13
Candidate Starts for Sonny_12:
(Start: 13 @9523 has 43 MA's), (20, 9568), (21, 9571), (28, 9625), (42, 9766), (46, 9793), (47, 9799), (62, 9895),

Gene: StevieBAY_12 Start: 9513, Stop: 9980, Start Num: 13
Candidate Starts for StevieBAY_12:
(7, 9420), (8, 9429), (Start: 13 @9513 has 43 MA's), (17, 9522), (28, 9615), (46, 9783), (57, 9846), (62, 9885),

Gene: SunnyJune_13 Start: 10212, Stop: 10679, Start Num: 13
Candidate Starts for SunnyJune_13:
(Start: 13 @10212 has 43 MA's), (28, 10314), (29, 10320), (31, 10329), (41, 10446), (45, 10473), (46, 10476), (47, 10482), (54, 10521), (62, 10578), (76, 10668),

Gene: TaeYoung_12 Start: 9527, Stop: 9994, Start Num: 13
Candidate Starts for TaeYoung_12:
(Start: 13 @9527 has 43 MA's), (20, 9572), (21, 9575), (28, 9629), (42, 9770), (46, 9797), (47, 9803), (62, 9899),

Gene: Thales_35 Start: 31400, Stop: 31870, Start Num: 10
Candidate Starts for Thales_35:
(Start: 10 @31400 has 1 MA's), (24, 31457), (25, 31475), (28, 31499), (30, 31511), (35, 31577), (49, 31676), (69, 31814),

Gene: Timinator_12 Start: 9513, Stop: 9980, Start Num: 13
Candidate Starts for Timinator_12:
(7, 9420), (8, 9429), (Start: 13 @9513 has 43 MA's), (17, 9522), (28, 9615), (46, 9783), (57, 9846), (62, 9885),

Gene: Toneprano_40 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for Toneprano_40:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32, 29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: Tophat_15 Start: 11510, Stop: 11980, Start Num: 12
Candidate Starts for Tophat_15:
(Start: 12 @11510 has 19 MA's), (17, 11522), (21, 11561), (22, 11564), (31, 11630), (32, 11636), (43, 11768), (50, 11801), (54, 11825), (57, 11843), (62, 11882), (70, 11927), (74, 11960), (76, 11972),

Gene: Twin_40 Start: 29827, Stop: 30282, Start Num: 13
Candidate Starts for Twin_40:
(9, 29764), (Start: 13 @29827 has 43 MA's), (19, 29848), (22, 29878), (28, 29929), (30, 29941), (32, 29953), (35, 30007), (39, 30052), (42, 30064), (43, 30079), (51, 30112), (73, 30250),

Gene: UBSmoodge_43 Start: 32453, Stop: 32908, Start Num: 13
Candidate Starts for UBSmoodge_43:
(4, 32291), (Start: 13 @32453 has 43 MA's), (16, 32459), (19, 32474), (28, 32555), (30, 32567), (33, 32594), (41, 32687), (43, 32705), (69, 32852), (73, 32876),

Gene: Vibaki_13 Start: 10981, Stop: 11451, Start Num: 11
Candidate Starts for Vibaki_13:
(Start: 11 @10981 has 4 MA's), (28, 11083), (42, 11221), (46, 11248), (47, 11254), (54, 11293), (62, 11350), (64, 11368),

Gene: Vitus_13 Start: 10783, Stop: 11253, Start Num: 11
Candidate Starts for Vitus_13:
(6, 10687), (Start: 11 @10783 has 4 MA's), (16, 10789), (21, 10831), (28, 10885), (47, 11056), (54, 11095), (62, 11152),

Gene: Wyborn_13 Start: 9863, Stop: 10336, Start Num: 13
Candidate Starts for Wyborn_13:
(Start: 13 @9863 has 43 MA's), (17, 9872), (27, 9956), (46, 10133), (50, 10154), (62, 10235), (71, 10286),

Gene: Zartrosa_12 Start: 9526, Stop: 9993, Start Num: 13
Candidate Starts for Zartrosa_12:
(Start: 13 @9526 has 43 MA's), (20, 9571), (21, 9574), (28, 9628), (42, 9769), (46, 9796), (47, 9802), (62, 9898),