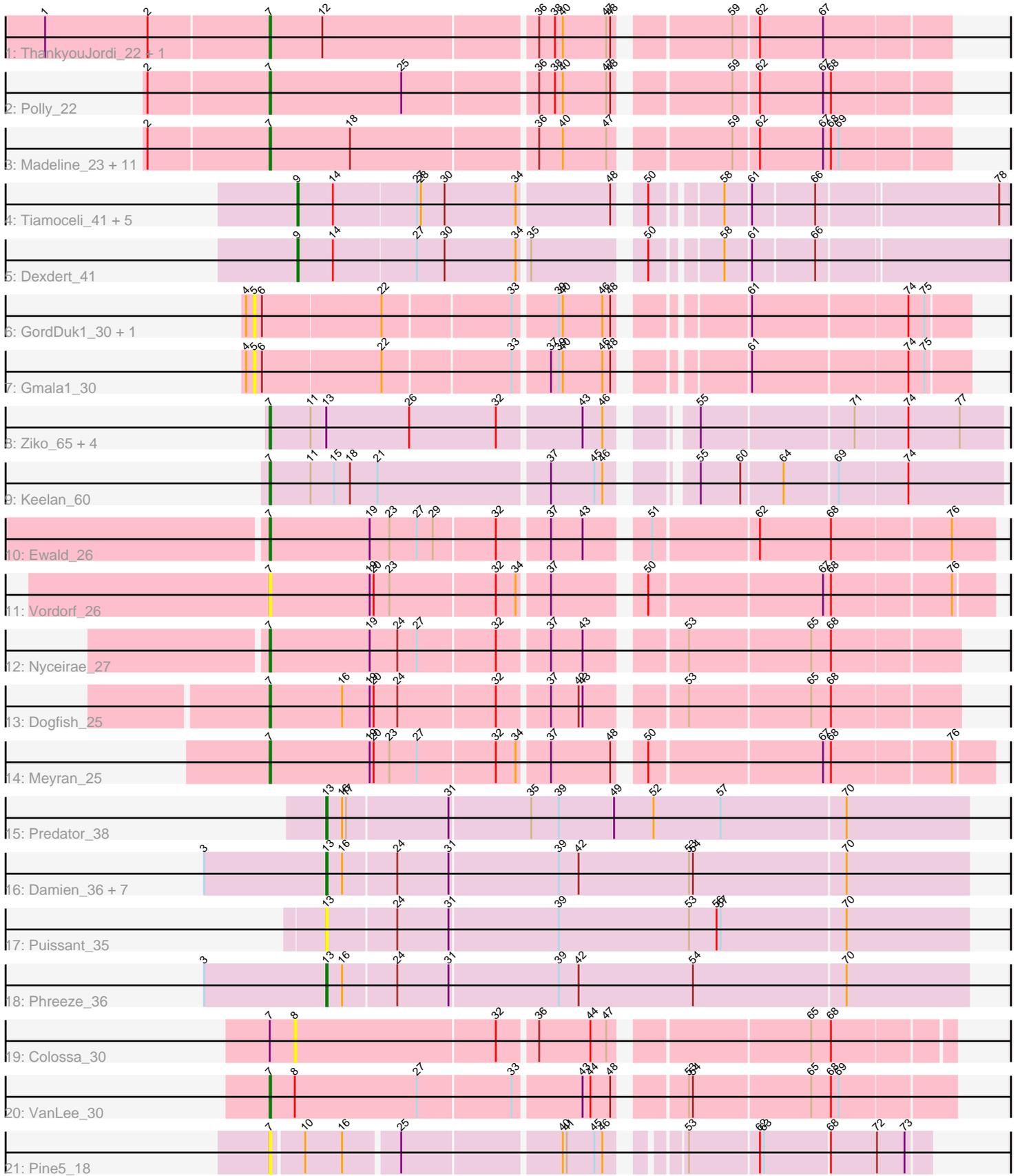# Pham 283900

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 283900 Report

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

Pham number 283900 has 50 members, 11 are drafts.

Phages represented in each track:
• Track 1 : ThankyouJordi_22, WelcomeAyanna_22
• Track 2 : Polly_22
• Track 3 : Madeline_23, Nymphadora_23, Bosnia_23, Zirinka_23, Herod_23, Hugley_23, Ohgeesy_23, Madavieve_23, Eviarto_23, BatStarr_23, TimTam_23, Bialota_23
• Track 4 : Tiamoceli_41, RoadKill_38, EdmundFerry_39, Chickadee_40, GTE6_40, Twonlo_38
• Track 5 : Dexdert_41
• Track 6 : GordDuk1_30, GordTnk2_30
• Track 7 : Gmala1_30
• Track 8 : Ziko_65, Guey18_68, Fryberger_62, Volt_65, Ronaldo_65
• Track 9 : Keelan_60
• Track 10 : Ewald_26
• Track 11 : Vordorf_26
• Track 12 : Nyceirae_27
• Track 13 : Dogfish_25
• Track 14 : Meyran_25
• Track 15 : Predator_38
• Track 16 : Damien_36, Beckerton_36, Cborch11_37, Konstantine_41, Thumb_36, Megatron06_38, BobtimousPrime_35, Oaker_36
• Track 17 : Puissant_35
• Track 18 : Phreeze_36
• Track 19 : Colossa_30
• Track 20 : VanLee_30
• Track 21 : Pine5_18

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

The start number called the most often in the published annotations is 7, it was called in 24 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• BatStarr_23, Bialota_23, Bosnia_23, Dogfish_25, Eviarto_23, Ewald_26, Fryberger_62, Guey18_68, Herod_23, Hugley_23, Keelan_60, Madavieve_23,

Madeline_23, Meyran_25, Nyceirae_27, Nymphadora_23, Ohgeesy_23, Pine5_18, Polly_22, Ronaldo_65, ThankyouJordi_22, TimTam_23, VanLee_30, Volt_65, Vordorf_26, WelcomeAyanna_22, Ziko_65, Zirinka_23,

Genes that have the "Most Annotated" start but do not call it:
• Colossa_30,

Genes that do not have the "Most Annotated" start:
• Beckerton_36, BobtimousPrime_35, Cborch11_37, Chickadee_40, Damien_36, Dexdert_41, EdmundFerry_39, GTE6_40, Gmala1_30, GordDuk1_30, GordTnk2_30, Konstantine_41, Megatron06_38, Oaker_36, Phreeze_36, Predator_38, Puissant_35, RoadKill_38, Thumb_36, Tiamoceli_41, Twonlo_38,

Summary by start number:

Start 5:
• Found in 3 of 50 (6.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gmala1_30 (DF1), GordDuk1_30 (DF1), GordTnk2_30 (DF1),

Start 7:
• Found in 29 of 50 (58.0%) of genes in pham
• Manual Annotations of this start: 24 of 39
• Called 96.6% of time when present
• Phage (with cluster) where this start called: BatStarr_23 (CZ1), Bialota_23 (CZ1), Bosnia_23 (CZ1), Dogfish_25 (DT), Eviarto_23 (CZ1), Ewald_26 (DT), Fryberger_62 (DP), Guey18_68 (DP), Herod_23 (CZ1), Hugley_23 (CZ1), Keelan_60 (DP), Madavieve_23 (CZ1), Madeline_23 (CZ1), Meyran_25 (DT), Nyceirae_27 (DT), Nymphadora_23 (CZ1), Ohgeesy_23 (CZ), Pine5_18 (singleton), Polly_22 (CZ1), Ronaldo_65 (DP), ThankyouJordi_22 (CZ1), TimTam_23 (CZ1), VanLee_30 (KA), Volt_65 (DP), Vordorf_26 (DT), WelcomeAyanna_22 (CZ1), Ziko_65 (DP), Zirinka_23 (CZ1),

Start 8:
• Found in 2 of 50 (4.0%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Colossa_30 (KA),

Start 9:
• Found in 7 of 50 (14.0%) of genes in pham
• Manual Annotations of this start: 6 of 39
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chickadee_40 (DE3), Dexdert_41 (DE3), EdmundFerry_39 (DE3), GTE6_40 (DE3), RoadKill_38 (DE3), Tiamoceli_41 (DE3), Twonlo_38 (DE3),

Start 13:
• Found in 16 of 50 (32.0%) of genes in pham
• Manual Annotations of this start: 9 of 39
• Called 68.8% of time when present

• Phage (with cluster) where this start called: Beckerton_36 (H1), BobtimousPrime_35 (H1), Cborch11_37 (H1), Damien_36 (H1), Konstantine_41 (H1), Megatron06_38 (H1), Oaker_36 (H1), Phreeze_36 (H1), Predator_38 (H1), Puissant_35 (H1), Thumb_36 (H1),

Summary by clusters:

There are 9 clusters represented in this pham: KA, CZ1, H1, DE3, DF1, singleton, CZ, DT, DP,

Info for manual annotations of cluster CZ:
•Start number 7 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 7 was manually annotated 12 times for cluster CZ1.

Info for manual annotations of cluster DE3:
•Start number 9 was manually annotated 6 times for cluster DE3.

Info for manual annotations of cluster DP:
•Start number 7 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster DT:
•Start number 7 was manually annotated 4 times for cluster DT.

Info for manual annotations of cluster H1:
•Start number 13 was manually annotated 9 times for cluster H1.

Info for manual annotations of cluster KA:
•Start number 7 was manually annotated 1 time for cluster KA.

Gene Information:
Gene: BatStarr_23 Start: 21427, Stop: 21909, Start Num: 7
Candidate Starts for BatStarr_23:
(2, 21337), (Start: 7 @21427 has 24 MA's), (18, 21487), (36, 21622), (40, 21640), (47, 21673), (59, 21751), (62, 21769), (67, 21817), (68, 21823), (69, 21829),

Gene: Beckerton_36 Start: 33410, Stop: 33889, Start Num: 13
Candidate Starts for Beckerton_36:
(3, 33317), (Start: 13 @33410 has 9 MA's), (16, 33422), (24, 33461), (31, 33500), (39, 33581), (42, 33596), (53, 33680), (54, 33683), (70, 33797),

Gene: Bialota_23 Start: 21439, Stop: 21921, Start Num: 7
Candidate Starts for Bialota_23:
(2, 21349), (Start: 7 @21439 has 24 MA's), (18, 21499), (36, 21634), (40, 21652), (47, 21685), (59, 21763), (62, 21781), (67, 21829), (68, 21835), (69, 21841),

Gene: BobtimousPrime_35 Start: 33330, Stop: 33809, Start Num: 13
Candidate Starts for BobtimousPrime_35:

(3, 33237), (Start: 13 @33330 has 9 MA's), (16, 33342), (24, 33381), (31, 33420), (39, 33501), (42, 33516), (53, 33600), (54, 33603), (70, 33717),

Gene: Bosnia_23 Start: 21427, Stop: 21909, Start Num: 7
Candidate Starts for Bosnia_23:
(2, 21337), (Start: 7 @21427 has 24 MA's), (18, 21487), (36, 21622), (40, 21640), (47, 21673), (59, 21751), (62, 21769), (67, 21817), (68, 21823), (69, 21829),

Gene: Cborch11_37 Start: 32875, Stop: 33354, Start Num: 13
Candidate Starts for Cborch11_37:
(3, 32782), (Start: 13 @32875 has 9 MA's), (16, 32887), (24, 32926), (31, 32965), (39, 33046), (42, 33061), (53, 33145), (54, 33148), (70, 33262),

Gene: Chickadee_40 Start: 36048, Stop: 36539, Start Num: 9
Candidate Starts for Chickadee_40:
(Start: 9 @36048 has 6 MA's), (14, 36075), (27, 36135), (28, 36138), (30, 36156), (34, 36210), (48, 36276), (50, 36291), (58, 36336), (61, 36354), (66, 36399), (78, 36531),

Gene: Colossa_30 Start: 25570, Stop: 26034, Start Num: 8
Candidate Starts for Colossa_30:
(Start: 7 @25552 has 24 MA's), (8, 25570), (32, 25720), (36, 25747), (44, 25786), (47, 25798), (65, 25933), (68, 25948),

Gene: Damien_36 Start: 32876, Stop: 33355, Start Num: 13
Candidate Starts for Damien_36:
(3, 32783), (Start: 13 @32876 has 9 MA's), (16, 32888), (24, 32927), (31, 32966), (39, 33047), (42, 33062), (53, 33146), (54, 33149), (70, 33263),

Gene: Dexdert_41 Start: 36308, Stop: 36799, Start Num: 9
Candidate Starts for Dexdert_41:
(Start: 9 @36308 has 6 MA's), (14, 36335), (27, 36395), (30, 36416), (34, 36470), (35, 36476), (50, 36551), (58, 36596), (61, 36614), (66, 36659),

Gene: Dogfish_25 Start: 21688, Stop: 22176, Start Num: 7
Candidate Starts for Dogfish_25:
(Start: 7 @21688 has 24 MA's), (16, 21742), (19, 21763), (20, 21766), (24, 21784), (32, 21856), (37, 21892), (42, 21913), (43, 21916), (53, 21979), (65, 22069), (68, 22084),

Gene: EdmundFerry_39 Start: 36077, Stop: 36568, Start Num: 9
Candidate Starts for EdmundFerry_39:
(Start: 9 @36077 has 6 MA's), (14, 36104), (27, 36164), (28, 36167), (30, 36185), (34, 36239), (48, 36305), (50, 36320), (58, 36365), (61, 36383), (66, 36428), (78, 36560),

Gene: Eviarto_23 Start: 21427, Stop: 21909, Start Num: 7
Candidate Starts for Eviarto_23:
(2, 21337), (Start: 7 @21427 has 24 MA's), (18, 21487), (36, 21622), (40, 21640), (47, 21673), (59, 21751), (62, 21769), (67, 21817), (68, 21823), (69, 21829),

Gene: Ewald_26 Start: 22047, Stop: 22562, Start Num: 7
Candidate Starts for Ewald_26:
(Start: 7 @22047 has 24 MA's), (19, 22122), (23, 22137), (27, 22158), (29, 22170), (32, 22215), (37, 22251), (43, 22275), (51, 22314), (62, 22389), (68, 22443), (76, 22530),

Gene: Fryberger_62 Start: 34972, Stop: 35487, Start Num: 7
Candidate Starts for Fryberger_62:
(Start: 7 @34972 has 24 MA's), (11, 35002), (Start: 13 @35014 has 9 MA's), (26, 35077), (32, 35143), (43, 35203), (46, 35218), (55, 35266), (71, 35377), (74, 35416), (77, 35455),

Gene: GTE6_40 Start: 36569, Stop: 37060, Start Num: 9
Candidate Starts for GTE6_40:
(Start: 9 @36569 has 6 MA's), (14, 36596), (27, 36656), (28, 36659), (30, 36677), (34, 36731), (48, 36797), (50, 36812), (58, 36857), (61, 36875), (66, 36920), (78, 37052),

Gene: Gmala1_30 Start: 35962, Stop: 36453, Start Num: 5
Candidate Starts for Gmala1_30:
(4, 35956), (5, 35962), (6, 35968), (22, 36055), (33, 36148), (37, 36172), (39, 36178), (40, 36181), (46, 36211), (48, 36217), (61, 36295), (74, 36409), (75, 36421),

Gene: GordDuk1_30 Start: 35900, Stop: 36391, Start Num: 5
Candidate Starts for GordDuk1_30:
(4, 35894), (5, 35900), (6, 35906), (22, 35993), (33, 36086), (39, 36116), (40, 36119), (46, 36149), (48, 36155), (61, 36233), (74, 36347), (75, 36359),

Gene: GordTnk2_30 Start: 35869, Stop: 36360, Start Num: 5
Candidate Starts for GordTnk2_30:
(4, 35863), (5, 35869), (6, 35875), (22, 35962), (33, 36055), (39, 36085), (40, 36088), (46, 36118), (48, 36124), (61, 36202), (74, 36316), (75, 36328),

Gene: Guey18_68 Start: 36492, Stop: 37007, Start Num: 7
Candidate Starts for Guey18_68:
(Start: 7 @36492 has 24 MA's), (11, 36522), (Start: 13 @36534 has 9 MA's), (26, 36597), (32, 36663), (43, 36723), (46, 36738), (55, 36786), (71, 36897), (74, 36936), (77, 36975),

Gene: Herod_23 Start: 21427, Stop: 21909, Start Num: 7
Candidate Starts for Herod_23:
(2, 21337), (Start: 7 @21427 has 24 MA's), (18, 21487), (36, 21622), (40, 21640), (47, 21673), (59, 21751), (62, 21769), (67, 21817), (68, 21823), (69, 21829),

Gene: Hugley_23 Start: 21427, Stop: 21909, Start Num: 7
Candidate Starts for Hugley_23:
(2, 21337), (Start: 7 @21427 has 24 MA's), (18, 21487), (36, 21622), (40, 21640), (47, 21673), (59, 21751), (62, 21769), (67, 21817), (68, 21823), (69, 21829),

Gene: Keelan_60 Start: 35211, Stop: 35726, Start Num: 7
Candidate Starts for Keelan_60:
(Start: 7 @35211 has 24 MA's), (11, 35241), (15, 35259), (18, 35271), (21, 35292), (37, 35418), (45, 35451), (46, 35457), (55, 35505), (60, 35535), (64, 35565), (69, 35604), (74, 35655),

Gene: Konstantine_41 Start: 34077, Stop: 34556, Start Num: 13
Candidate Starts for Konstantine_41:
(3, 33984), (Start: 13 @34077 has 9 MA's), (16, 34089), (24, 34128), (31, 34167), (39, 34248), (42, 34263), (53, 34347), (54, 34350), (70, 34464),

Gene: Madavieve_23 Start: 21707, Stop: 22189, Start Num: 7
Candidate Starts for Madavieve_23:

(2, 21617), (Start: 7 @21707 has 24 MA's), (18, 21767), (36, 21902), (40, 21920), (47, 21953), (59, 22031), (62, 22049), (67, 22097), (68, 22103), (69, 22109),

Gene: Madeline_23 Start: 21725, Stop: 22207, Start Num: 7
Candidate Starts for Madeline_23:
(2, 21635), (Start: 7 @21725 has 24 MA's), (18, 21785), (36, 21920), (40, 21938), (47, 21971), (59, 22049), (62, 22067), (67, 22115), (68, 22121), (69, 22127),

Gene: Megatron06_38 Start: 33409, Stop: 33888, Start Num: 13
Candidate Starts for Megatron06_38:
(3, 33316), (Start: 13 @33409 has 9 MA's), (16, 33421), (24, 33460), (31, 33499), (39, 33580), (42, 33595), (53, 33679), (54, 33682), (70, 33796),

Gene: Meyran_25 Start: 22519, Stop: 23031, Start Num: 7
Candidate Starts for Meyran_25:
(Start: 7 @22519 has 24 MA's), (19, 22594), (20, 22597), (23, 22609), (27, 22630), (32, 22687), (34, 22702), (37, 22723), (48, 22768), (50, 22783), (67, 22909), (68, 22915), (76, 23002),

Gene: Nyceirae_27 Start: 22280, Stop: 22768, Start Num: 7
Candidate Starts for Nyceirae_27:
(Start: 7 @22280 has 24 MA's), (19, 22355), (24, 22376), (27, 22391), (32, 22448), (37, 22484), (43, 22508), (53, 22571), (65, 22661), (68, 22676),

Gene: Nymphadora_23 Start: 21427, Stop: 21909, Start Num: 7
Candidate Starts for Nymphadora_23:
(2, 21337), (Start: 7 @21427 has 24 MA's), (18, 21487), (36, 21622), (40, 21640), (47, 21673), (59, 21751), (62, 21769), (67, 21817), (68, 21823), (69, 21829),

Gene: Oaker_36 Start: 33133, Stop: 33612, Start Num: 13
Candidate Starts for Oaker_36:
(3, 33040), (Start: 13 @33133 has 9 MA's), (16, 33145), (24, 33184), (31, 33223), (39, 33304), (42, 33319), (53, 33403), (54, 33406), (70, 33520),

Gene: Ohgeesy_23 Start: 21050, Stop: 21532, Start Num: 7
Candidate Starts for Ohgeesy_23:
(2, 20960), (Start: 7 @21050 has 24 MA's), (18, 21110), (36, 21245), (40, 21263), (47, 21296), (59, 21374), (62, 21392), (67, 21440), (68, 21446), (69, 21452),

Gene: Phreeze_36 Start: 32876, Stop: 33355, Start Num: 13
Candidate Starts for Phreeze_36:
(3, 32783), (Start: 13 @32876 has 9 MA's), (16, 32888), (24, 32927), (31, 32966), (39, 33047), (42, 33062), (54, 33149), (70, 33263),

Gene: Pine5_18 Start: 14642, Stop: 15085, Start Num: 7
Candidate Starts for Pine5_18:
(Start: 7 @14642 has 24 MA's), (10, 14663), (16, 14690), (25, 14729), (40, 14843), (41, 14846), (45, 14867), (46, 14873), (53, 14912), (62, 14963), (63, 14966), (68, 15014), (72, 15047), (73, 15068),

Gene: Polly_22 Start: 20867, Stop: 21349, Start Num: 7
Candidate Starts for Polly_22:
(2, 20777), (Start: 7 @20867 has 24 MA's), (25, 20966), (36, 21062), (38, 21074), (40, 21080), (47, 21113), (48, 21116), (59, 21191), (62, 21209), (67, 21257), (68, 21263),

Gene: Predator_38 Start: 32067, Stop: 32546, Start Num: 13
Candidate Starts for Predator_38:
(Start: 13 @32067 has 9 MA's), (16, 32079), (17, 32082), (31, 32157), (35, 32217), (39, 32238), (49, 32280), (52, 32310), (57, 32361), (70, 32454),

Gene: Puissant_35 Start: 33364, Stop: 33843, Start Num: 13
Candidate Starts for Puissant_35:
(Start: 13 @33364 has 9 MA's), (24, 33415), (31, 33454), (39, 33535), (53, 33634), (56, 33655), (57, 33658), (70, 33751),

Gene: RoadKill_38 Start: 35572, Stop: 36063, Start Num: 9
Candidate Starts for RoadKill_38:
(Start: 9 @35572 has 6 MA's), (14, 35599), (27, 35659), (28, 35662), (30, 35680), (34, 35734), (48, 35800), (50, 35815), (58, 35860), (61, 35878), (66, 35923), (78, 36055),

Gene: Ronaldo_65 Start: 35871, Stop: 36386, Start Num: 7
Candidate Starts for Ronaldo_65:
(Start: 7 @35871 has 24 MA's), (11, 35901), (Start: 13 @35913 has 9 MA's), (26, 35976), (32, 36042), (43, 36102), (46, 36117), (55, 36165), (71, 36276), (74, 36315), (77, 36354),

Gene: ThankyouJordi_22 Start: 21402, Stop: 21884, Start Num: 7
Candidate Starts for ThankyouJordi_22:
(1, 21234), (2, 21312), (Start: 7 @21402 has 24 MA's), (12, 21441), (36, 21597), (38, 21609), (40, 21615), (47, 21648), (48, 21651), (59, 21726), (62, 21744), (67, 21792),

Gene: Thumb_36 Start: 32873, Stop: 33352, Start Num: 13
Candidate Starts for Thumb_36:
(3, 32780), (Start: 13 @32873 has 9 MA's), (16, 32885), (24, 32924), (31, 32963), (39, 33044), (42, 33059), (53, 33143), (54, 33146), (70, 33260),

Gene: Tiamoceli_41 Start: 36905, Stop: 37396, Start Num: 9
Candidate Starts for Tiamoceli_41:
(Start: 9 @36905 has 6 MA's), (14, 36932), (27, 36992), (28, 36995), (30, 37013), (34, 37067), (48, 37133), (50, 37148), (58, 37193), (61, 37211), (66, 37256), (78, 37388),

Gene: TimTam_23 Start: 21427, Stop: 21909, Start Num: 7
Candidate Starts for TimTam_23:
(2, 21337), (Start: 7 @21427 has 24 MA's), (18, 21487), (36, 21622), (40, 21640), (47, 21673), (59, 21751), (62, 21769), (67, 21817), (68, 21823), (69, 21829),

Gene: Twonlo_38 Start: 35523, Stop: 36014, Start Num: 9
Candidate Starts for Twonlo_38:
(Start: 9 @35523 has 6 MA's), (14, 35550), (27, 35610), (28, 35613), (30, 35631), (34, 35685), (48, 35751), (50, 35766), (58, 35811), (61, 35829), (66, 35874), (78, 36006),

Gene: VanLee_30 Start: 25581, Stop: 26066, Start Num: 7
Candidate Starts for VanLee_30:
(Start: 7 @25581 has 24 MA's), (8, 25599), (27, 25692), (33, 25761), (43, 25809), (44, 25815), (48, 25830), (53, 25872), (54, 25875), (65, 25962), (68, 25977), (69, 25983),

Gene: Volt_65 Start: 36035, Stop: 36550, Start Num: 7
Candidate Starts for Volt_65:

(Start: 7 @36035 has 24 MA's), (11, 36065), (Start: 13 @36077 has 9 MA's), (26, 36140), (32, 36206), (43, 36266), (46, 36281), (55, 36329), (71, 36440), (74, 36479), (77, 36518),

Gene: Vordorf_26 Start: 21985, Stop: 22497, Start Num: 7
Candidate Starts for Vordorf_26:
(Start: 7 @21985 has 24 MA's), (19, 22060), (20, 22063), (23, 22075), (32, 22153), (34, 22168), (37, 22189), (50, 22249), (67, 22375), (68, 22381), (76, 22468),

Gene: WelcomeAyanna_22 Start: 21402, Stop: 21884, Start Num: 7
Candidate Starts for WelcomeAyanna_22:
(1, 21234), (2, 21312), (Start: 7 @21402 has 24 MA's), (12, 21441), (36, 21597), (38, 21609), (40, 21615), (47, 21648), (48, 21651), (59, 21726), (62, 21744), (67, 21792),

Gene: Ziko_65 Start: 35857, Stop: 36372, Start Num: 7
Candidate Starts for Ziko_65:
(Start: 7 @35857 has 24 MA's), (11, 35887), (Start: 13 @35899 has 9 MA's), (26, 35962), (32, 36028), (43, 36088), (46, 36103), (55, 36151), (71, 36262), (74, 36301), (77, 36340),

Gene: Zirinka_23 Start: 21439, Stop: 21921, Start Num: 7
Candidate Starts for Zirinka_23:
(2, 21349), (Start: 7 @21439 has 24 MA's), (18, 21499), (36, 21634), (40, 21652), (47, 21685), (59, 21763), (62, 21781), (67, 21829), (68, 21835), (69, 21841),