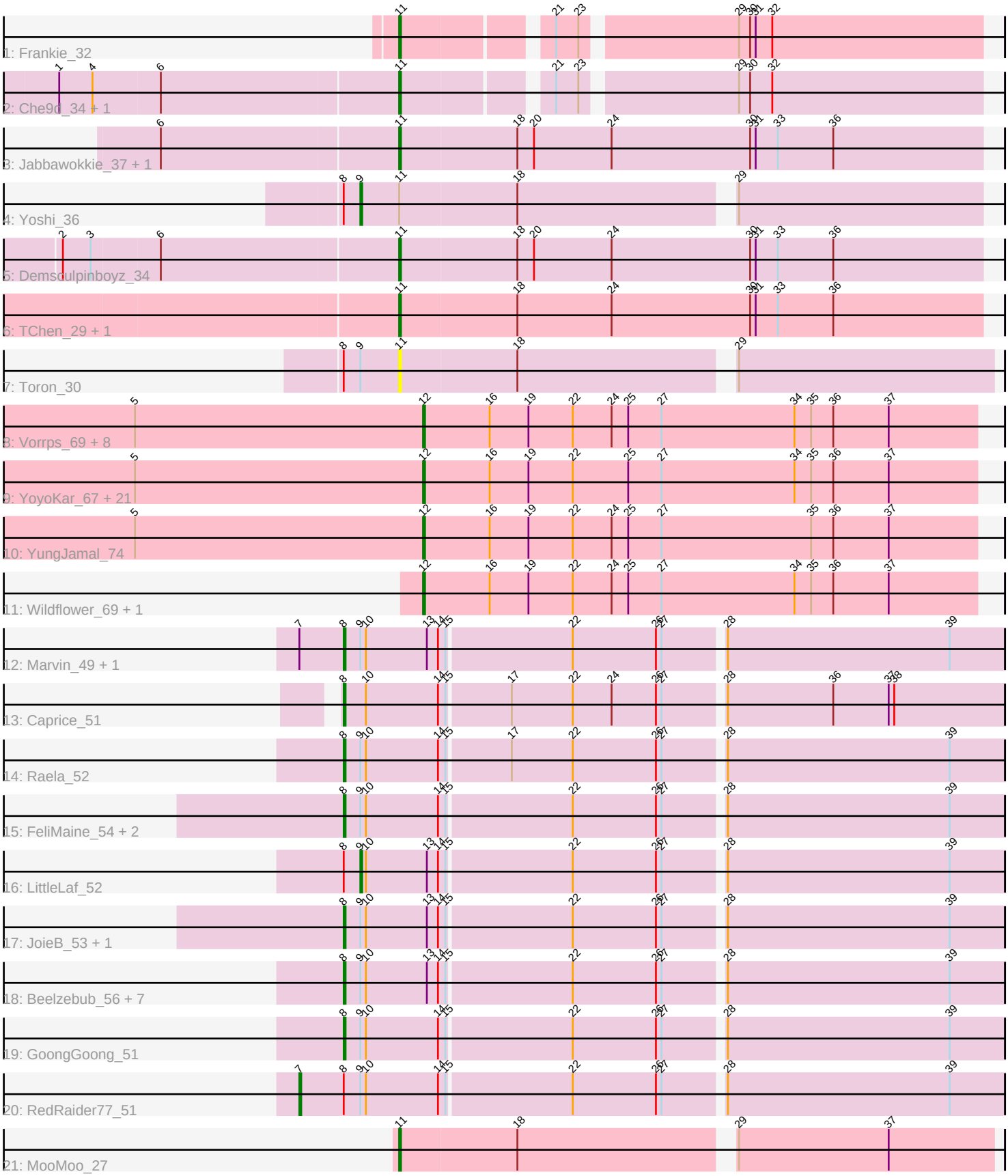
# Pham 347611


1: Frankie_32
2: Che9d_34 + 1
3: Jabbawokkie_37 + 1
4: Yoshi_36
5: Demsdulpinboyz_34
6: TChen_29 + 1
7: Toron_30
8: Vorrps_69 + 8
9: YoyoKar_67 + 21
10: YungJamal_74
11: Wildflower_69 + 1
12: Marvin_49 + 1
13: Caprice_51
14: Raela_52
15: FeliMaine_54 + 2
16: LittleLaf_52
17: JoieB_53 + 1
18: Beelzebub_56 + 7
19: GoongGoong_51
20: RedRaider77_51
21: MooMoo_27

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 347611 Report

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

Pham number 347611 has 65 members, 3 are drafts.

Phages represented in each track:
• Track 1 : Frankie_32
• Track 2 : Che9d_34, Avani_34
• Track 3 : Jabbawokkie_37, Zapner_36
• Track 4 : Yoshi_36
• Track 5 : Demsculpinboyz_34
• Track 6 : TChen_29, LunaStella_31
• Track 7 : Toron_30
• Track 8 : Vorrps_69, JangDynasty_69, KingPhillip3_69, Corndog_72, Firecracker_71, Mori_69, Smooch_72, MadKillah_70, Wogge42_68
• Track 9 : YoyoKar_67, Zakhe101_68, Imara_69, Murai_70, FoulBall_69, Winget_70, Shida_69, Idergollasper_69, Alkhayr_69, NiebruSaylor_68, SchoolBus_69, Blessica_70, Zebo_69, Vagabond_69, Ryadel_73, Bora_67, Krili_68, TelAviv_66, Catdawg_69, Dylan_69, Familton_70, Schuy_70
• Track 10 : YungJamal_74
• Track 11 : Wildflower_69, Ashwin_71
• Track 12 : Marvin_49, Tesla_50
• Track 13 : Caprice_51
• Track 14 : Raela_52
• Track 15 : FeliMaine_54, MosMoris_50, Gattaca_51
• Track 16 : LittleLaf_52
• Track 17 : JoieB_53, Corazon_50
• Track 18 : Beelzebub_56, Poise_52, Clarkson_53, Blackbeetle_52, Pringar_52, Lilbit_51, Huphlepuff_54, VasuNzinga_52
• Track 19 : GoongGoong_51
• Track 20 : RedRaider77_51
• Track 21 : MooMoo_27

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

The start number called the most often in the published annotations is 12, it was called in 32 of the 62 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Alkhayr_69, Ashwin_71, Blessica_70, Bora_67, Catdawg_69, Corndog_72, Dylan_69, Familton_70, Firecracker_71, FoulBall_69, Idergollasper_69, Imara_69, JangDynasty_69, KingPhillip3_69, Krili_68, MadKillah_70, Mori_69, Murai_70, NiebruSaylor_68, Ryadel_73, SchoolBus_69, Schuy_70, Shida_69, Smooch_72, TelAviv_66, Vagabond_69, Vorrps_69, Wildflower_69, Winget_70, Wogge42_68, YoyoKar_67, YungJamal_74, Zakhe101_68, Zebo_69,

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

Genes that do not have the "Most Annotated" start:
• Avani_34, Beelzebub_56, Blackbeetle_52, Caprice_51, Che9d_34, Clarkson_53, Corazon_50, Demsculpinboyz_34, FeliMaine_54, Frankie_32, Gattaca_51, GoongGoong_51, Huphlepuff_54, Jabbawokkie_37, JoieB_53, Lilbit_51, LittleLaf_52, LunaStella_31, Marvin_49, MooMoo_27, MosMoris_50, Poise_52, Pringar_52, Raela_52, RedRaider77_51, TChen_29, Tesla_50, Toron_30, VasuNzinga_52, Yoshi_36, Zapner_36,

**Summary by start number:**

Start 7:
• Found in 3 of 65 ( 4.6% ) of genes in pham
• Manual Annotations of this start: 1 of 62
• Called 33.3% of time when present
• Phage (with cluster) where this start called: RedRaider77_51 (S),

Start 8:
• Found in 22 of 65 ( 33.8% ) of genes in pham
• Manual Annotations of this start: 18 of 62
• Called 81.8% of time when present
• Phage (with cluster) where this start called: Beelzebub_56 (S), Blackbeetle_52 (S), Caprice_51 (S), Clarkson_53 (S), Corazon_50 (S), FeliMaine_54 (S), Gattaca_51 (S), GoongGoong_51 (S), Huphlepuff_54 (S), JoieB_53 (S), Lilbit_51 (S), Marvin_49 (S), MosMoris_50 (S), Poise_52 (S), Pringar_52 (S), Raela_52 (S), Tesla_50 (S), VasuNzinga_52 (S),

Start 9:
• Found in 21 of 65 ( 32.3% ) of genes in pham
• Manual Annotations of this start: 2 of 62
• Called 9.5% of time when present
• Phage (with cluster) where this start called: LittleLaf_52 (S), Yoshi_36 (F2),

Start 11:
• Found in 11 of 65 ( 16.9% ) of genes in pham
• Manual Annotations of this start: 9 of 62
• Called 90.9% of time when present
• Phage (with cluster) where this start called: Avani_34 (F2), Che9d_34 (F2), Demsculpinboyz_34 (F2), Frankie_32 (F1), Jabbawokkie_37 (F2), LunaStella_31 (F4), MooMoo_27 (singleton), TChen_29 (F4), Toron_30 (F6), Zapner_36 (F2),

Start 12:
• Found in 34 of 65 ( 52.3% ) of genes in pham
• Manual Annotations of this start: 32 of 62

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alkhayr_69 (O), Ashwin_71 (O), Blessica_70 (O), Bora_67 (O), Catdawg_69 (O), Corndog_72 (O), Dylan_69 (O), Familton_70 (O), Firecracker_71 (O), FoulBall_69 (O), Idergollasper_69 (O), Imara_69 (O), JangDynasty_69 (O), KingPhillip3_69 (O), Krili_68 (O), MadKillah_70 (O), Mori_69 (O), Murai_70 (O), NiebruSaylor_68 (O), Ryadel_73 (O), SchoolBus_69 (O), Schuy_70 (O), Shida_69 (O), Smooch_72 (O), TelAviv_66 (O), Vagabond_69 (O), Vorrps_69 (O), Wildflower_69 (O), Winget_70 (O), Wogge42_68 (O), YoyoKar_67 (O), YungJamal_74 (O), Zakhe101_68 (O), Zebo_69 (O),

**Summary by clusters:**

There are 7 clusters represented in this pham: F1, F2, F4, F6, singleton, O, S,

Info for manual annotations of cluster F1:
•Start number 11 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 9 was manually annotated 1 time for cluster F2.
•Start number 11 was manually annotated 5 times for cluster F2.

Info for manual annotations of cluster F4:
•Start number 11 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster O:
•Start number 12 was manually annotated 32 times for cluster O.

Info for manual annotations of cluster S:
•Start number 7 was manually annotated 1 time for cluster S.
•Start number 8 was manually annotated 18 times for cluster S.
•Start number 9 was manually annotated 1 time for cluster S.

***Gene Information:***

Gene: Alkhayr_69 Start: 44479, Stop: 44778, Start Num: 12
Candidate Starts for Alkhayr_69:
(5, 44323), (Start: 12 @44479 has 32 MA's), (16, 44515), (19, 44536), (22, 44560), (25, 44590), (27, 44608), (34, 44680), (35, 44689), (36, 44701), (37, 44731),

Gene: Ashwin_71 Start: 45249, Stop: 45548, Start Num: 12
Candidate Starts for Ashwin_71:
(Start: 12 @45249 has 32 MA's), (16, 45285), (19, 45306), (22, 45330), (24, 45351), (25, 45360), (27, 45378), (34, 45450), (35, 45459), (36, 45471), (37, 45501),

Gene: Avani_34 Start: 25152, Stop: 25445, Start Num: 11
Candidate Starts for Avani_34:
(1, 24972), (4, 24990), (6, 25026), (Start: 11 @25152 has 9 MA's), (21, 25224), (23, 25236), (29, 25314), (30, 25320), (32, 25332),

Gene: Beelzebub_56 Start: 29928, Stop: 30275, Start Num: 8

Candidate Starts for Beelzebub_56:
(Start: 8 @29928 has 18 MA's), (Start: 9 @29937 has 2 MA's), (10, 29940), (13, 29973), (14, 29979), (15, 29982), (22, 30048), (26, 30093), (27, 30096), (28, 30126), (39, 30246),

Gene: Blackbeetle_52 Start: 28974, Stop: 29321, Start Num: 8
Candidate Starts for Blackbeetle_52:
(Start: 8 @28974 has 18 MA's), (Start: 9 @28983 has 2 MA's), (10, 28986), (13, 29019), (14, 29025), (15, 29028), (22, 29094), (26, 29139), (27, 29142), (28, 29172), (39, 29292),

Gene: Blessica_70 Start: 45078, Stop: 45377, Start Num: 12
Candidate Starts for Blessica_70:
(5, 44922), (Start: 12 @45078 has 32 MA's), (16, 45114), (19, 45135), (22, 45159), (25, 45189), (27, 45207), (34, 45279), (35, 45288), (36, 45300), (37, 45330),

Gene: Bora_67 Start: 44459, Stop: 44758, Start Num: 12
Candidate Starts for Bora_67:
(5, 44303), (Start: 12 @44459 has 32 MA's), (16, 44495), (19, 44516), (22, 44540), (25, 44570), (27, 44588), (34, 44660), (35, 44669), (36, 44681), (37, 44711),

Gene: Caprice_51 Start: 29287, Stop: 29634, Start Num: 8
Candidate Starts for Caprice_51:
(Start: 8 @29287 has 18 MA's), (10, 29299), (14, 29338), (15, 29341), (17, 29374), (22, 29407), (24, 29428), (26, 29452), (27, 29455), (28, 29485), (36, 29542), (37, 29572), (38, 29575),

Gene: Catdawg_69 Start: 44814, Stop: 45113, Start Num: 12
Candidate Starts for Catdawg_69:
(5, 44658), (Start: 12 @44814 has 32 MA's), (16, 44850), (19, 44871), (22, 44895), (25, 44925), (27, 44943), (34, 45015), (35, 45024), (36, 45036), (37, 45066),

Gene: Che9d_34 Start: 25160, Stop: 25453, Start Num: 11
Candidate Starts for Che9d_34:
(1, 24980), (4, 24998), (6, 25034), (Start: 11 @25160 has 9 MA's), (21, 25232), (23, 25244), (29, 25322), (30, 25328), (32, 25340),

Gene: Clarkson_53 Start: 29656, Stop: 30003, Start Num: 8
Candidate Starts for Clarkson_53:
(Start: 8 @29656 has 18 MA's), (Start: 9 @29665 has 2 MA's), (10, 29668), (13, 29701), (14, 29707), (15, 29710), (22, 29776), (26, 29821), (27, 29824), (28, 29854), (39, 29974),

Gene: Corazon_50 Start: 29850, Stop: 30197, Start Num: 8
Candidate Starts for Corazon_50:
(Start: 8 @29850 has 18 MA's), (Start: 9 @29859 has 2 MA's), (10, 29862), (13, 29895), (14, 29901), (15, 29904), (22, 29970), (26, 30015), (27, 30018), (28, 30048), (39, 30168),

Gene: Corndog_72 Start: 45808, Stop: 46107, Start Num: 12
Candidate Starts for Corndog_72:
(5, 45652), (Start: 12 @45808 has 32 MA's), (16, 45844), (19, 45865), (22, 45889), (24, 45910), (25, 45919), (27, 45937), (34, 46009), (35, 46018), (36, 46030), (37, 46060),

Gene: Demsculpinboyz_34 Start: 25143, Stop: 25457, Start Num: 11
Candidate Starts for Demsculpinboyz_34:
(2, 24966), (3, 24981), (6, 25017), (Start: 11 @25143 has 9 MA's), (18, 25206), (20, 25215), (24, 25257), (30, 25332), (31, 25335), (33, 25347), (36, 25377),

Gene: Dylan_69 Start: 44861, Stop: 45160, Start Num: 12
Candidate Starts for Dylan_69:
(5, 44705), (Start: 12 @44861 has 32 MA's), (16, 44897), (19, 44918), (22, 44942), (25, 44972), (27, 44990), (34, 45062), (35, 45071), (36, 45083), (37, 45113),

Gene: Familton_70 Start: 44771, Stop: 45070, Start Num: 12
Candidate Starts for Familton_70:
(5, 44615), (Start: 12 @44771 has 32 MA's), (16, 44807), (19, 44828), (22, 44852), (25, 44882), (27, 44900), (34, 44972), (35, 44981), (36, 44993), (37, 45023),

Gene: FeliMaine_54 Start: 29898, Stop: 30245, Start Num: 8
Candidate Starts for FeliMaine_54:
(Start: 8 @29898 has 18 MA's), (Start: 9 @29907 has 2 MA's), (10, 29910), (14, 29949), (15, 29952), (22, 30018), (26, 30063), (27, 30066), (28, 30096), (39, 30216),

Gene: Firecracker_71 Start: 45161, Stop: 45460, Start Num: 12
Candidate Starts for Firecracker_71:
(5, 45005), (Start: 12 @45161 has 32 MA's), (16, 45197), (19, 45218), (22, 45242), (24, 45263), (25, 45272), (27, 45290), (34, 45362), (35, 45371), (36, 45383), (37, 45413),

Gene: FoulBall_69 Start: 44765, Stop: 45064, Start Num: 12
Candidate Starts for FoulBall_69:
(5, 44609), (Start: 12 @44765 has 32 MA's), (16, 44801), (19, 44822), (22, 44846), (25, 44876), (27, 44894), (34, 44966), (35, 44975), (36, 44987), (37, 45017),

Gene: Frankie_32 Start: 26616, Stop: 26909, Start Num: 11
Candidate Starts for Frankie_32:
(Start: 11 @26616 has 9 MA's), (21, 26688), (23, 26700), (29, 26778), (30, 26784), (31, 26787), (32, 26796),

Gene: Gattaca_51 Start: 29077, Stop: 29424, Start Num: 8
Candidate Starts for Gattaca_51:
(Start: 8 @29077 has 18 MA's), (Start: 9 @29086 has 2 MA's), (10, 29089), (14, 29128), (15, 29131), (22, 29197), (26, 29242), (27, 29245), (28, 29275), (39, 29395),

Gene: GoongGoong_51 Start: 28876, Stop: 29223, Start Num: 8
Candidate Starts for GoongGoong_51:
(Start: 8 @28876 has 18 MA's), (Start: 9 @28885 has 2 MA's), (10, 28888), (14, 28927), (15, 28930), (22, 28996), (26, 29041), (27, 29044), (28, 29074), (39, 29194),

Gene: Huphlepuff_54 Start: 29461, Stop: 29808, Start Num: 8
Candidate Starts for Huphlepuff_54:
(Start: 8 @29461 has 18 MA's), (Start: 9 @29470 has 2 MA's), (10, 29473), (13, 29506), (14, 29512), (15, 29515), (22, 29581), (26, 29626), (27, 29629), (28, 29659), (39, 29779),

Gene: Idergollasper_69 Start: 44765, Stop: 45064, Start Num: 12
Candidate Starts for Idergollasper_69:
(5, 44609), (Start: 12 @44765 has 32 MA's), (16, 44801), (19, 44822), (22, 44846), (25, 44876), (27, 44894), (34, 44966), (35, 44975), (36, 44987), (37, 45017),

Gene: Imara_69 Start: 44565, Stop: 44864, Start Num: 12
Candidate Starts for Imara_69:

(5, 44409), (Start: 12 @44565 has 32 MA's), (16, 44601), (19, 44622), (22, 44646), (25, 44676), (27, 44694), (34, 44766), (35, 44775), (36, 44787), (37, 44817),

Gene: Jabbawokkie_37 Start: 26591, Stop: 26905, Start Num: 11
Candidate Starts for Jabbawokkie_37:
(6, 26465), (Start: 11 @26591 has 9 MA's), (18, 26654), (20, 26663), (24, 26705), (30, 26780), (31, 26783), (33, 26795), (36, 26825),

Gene: JangDynasty_69 Start: 44851, Stop: 45150, Start Num: 12
Candidate Starts for JangDynasty_69:
(5, 44695), (Start: 12 @44851 has 32 MA's), (16, 44887), (19, 44908), (22, 44932), (24, 44953), (25, 44962), (27, 44980), (34, 45052), (35, 45061), (36, 45073), (37, 45103),

Gene: JoieB_53 Start: 29894, Stop: 30241, Start Num: 8
Candidate Starts for JoieB_53:
(Start: 8 @29894 has 18 MA's), (Start: 9 @29903 has 2 MA's), (10, 29906), (13, 29939), (14, 29945), (15, 29948), (22, 30014), (26, 30059), (27, 30062), (28, 30092), (39, 30212),

Gene: KingPhillip3_69 Start: 44780, Stop: 45079, Start Num: 12
Candidate Starts for KingPhillip3_69:
(5, 44624), (Start: 12 @44780 has 32 MA's), (16, 44816), (19, 44837), (22, 44861), (24, 44882), (25, 44891), (27, 44909), (34, 44981), (35, 44990), (36, 45002), (37, 45032),

Gene: Krili_68 Start: 44275, Stop: 44574, Start Num: 12
Candidate Starts for Krili_68:
(5, 44119), (Start: 12 @44275 has 32 MA's), (16, 44311), (19, 44332), (22, 44356), (25, 44386), (27, 44404), (34, 44476), (35, 44485), (36, 44497), (37, 44527),

Gene: Lilbit_51 Start: 29657, Stop: 30004, Start Num: 8
Candidate Starts for Lilbit_51:
(Start: 8 @29657 has 18 MA's), (Start: 9 @29666 has 2 MA's), (10, 29669), (13, 29702), (14, 29708), (15, 29711), (22, 29777), (26, 29822), (27, 29825), (28, 29855), (39, 29975),

Gene: LittleLaf_52 Start: 29395, Stop: 29733, Start Num: 9
Candidate Starts for LittleLaf_52:
(Start: 8 @29386 has 18 MA's), (Start: 9 @29395 has 2 MA's), (10, 29398), (13, 29431), (14, 29437), (15, 29440), (22, 29506), (26, 29551), (27, 29554), (28, 29584), (39, 29704),

Gene: LunaStella_31 Start: 26515, Stop: 26829, Start Num: 11
Candidate Starts for LunaStella_31:
(Start: 11 @26515 has 9 MA's), (18, 26578), (24, 26629), (30, 26704), (31, 26707), (33, 26719), (36, 26749),

Gene: MadKillah_70 Start: 44544, Stop: 44843, Start Num: 12
Candidate Starts for MadKillah_70:
(5, 44388), (Start: 12 @44544 has 32 MA's), (16, 44580), (19, 44601), (22, 44625), (24, 44646), (25, 44655), (27, 44673), (34, 44745), (35, 44754), (36, 44766), (37, 44796),

Gene: Marvin_49 Start: 29144, Stop: 29491, Start Num: 8
Candidate Starts for Marvin_49:
(Start: 7 @29120 has 1 MA's), (Start: 8 @29144 has 18 MA's), (Start: 9 @29153 has 2 MA's), (10, 29156), (13, 29189), (14, 29195), (15, 29198), (22, 29264), (26, 29309), (27, 29312), (28, 29342), (39, 29462),

Gene: MooMoo_27 Start: 25154, Stop: 25462, Start Num: 11
Candidate Starts for MooMoo_27:
(Start: 11 @25154 has 9 MA's), (18, 25217), (29, 25325), (37, 25406),

Gene: Mori_69 Start: 44806, Stop: 45105, Start Num: 12
Candidate Starts for Mori_69:
(5, 44650), (Start: 12 @44806 has 32 MA's), (16, 44842), (19, 44863), (22, 44887), (24, 44908), (25, 44917), (27, 44935), (34, 45007), (35, 45016), (36, 45028), (37, 45058),

Gene: MosMoris_50 Start: 29077, Stop: 29424, Start Num: 8
Candidate Starts for MosMoris_50:
(Start: 8 @29077 has 18 MA's), (Start: 9 @29086 has 2 MA's), (10, 29089), (14, 29128), (15, 29131), (22, 29197), (26, 29242), (27, 29245), (28, 29275), (39, 29395),

Gene: Murai_70 Start: 44987, Stop: 45286, Start Num: 12
Candidate Starts for Murai_70:
(5, 44831), (Start: 12 @44987 has 32 MA's), (16, 45023), (19, 45044), (22, 45068), (25, 45098), (27, 45116), (34, 45188), (35, 45197), (36, 45209), (37, 45239),

Gene: NiebruSaylor_68 Start: 44194, Stop: 44493, Start Num: 12
Candidate Starts for NiebruSaylor_68:
(5, 44038), (Start: 12 @44194 has 32 MA's), (16, 44230), (19, 44251), (22, 44275), (25, 44305), (27, 44323), (34, 44395), (35, 44404), (36, 44416), (37, 44446),

Gene: Poise_52 Start: 28974, Stop: 29321, Start Num: 8
Candidate Starts for Poise_52:
(Start: 8 @28974 has 18 MA's), (Start: 9 @28983 has 2 MA's), (10, 28986), (13, 29019), (14, 29025), (15, 29028), (22, 29094), (26, 29139), (27, 29142), (28, 29172), (39, 29292),

Gene: Pringar_52 Start: 29262, Stop: 29609, Start Num: 8
Candidate Starts for Pringar_52:
(Start: 8 @29262 has 18 MA's), (Start: 9 @29271 has 2 MA's), (10, 29274), (13, 29307), (14, 29313), (15, 29316), (22, 29382), (26, 29427), (27, 29430), (28, 29460), (39, 29580),

Gene: Raela_52 Start: 29529, Stop: 29876, Start Num: 8
Candidate Starts for Raela_52:
(Start: 8 @29529 has 18 MA's), (Start: 9 @29538 has 2 MA's), (10, 29541), (14, 29580), (15, 29583), (17, 29616), (22, 29649), (26, 29694), (27, 29697), (28, 29727), (39, 29847),

Gene: RedRaider77_51 Start: 28894, Stop: 29265, Start Num: 7
Candidate Starts for RedRaider77_51:
(Start: 7 @28894 has 1 MA's), (Start: 8 @28918 has 18 MA's), (Start: 9 @28927 has 2 MA's), (10, 28930), (14, 28969), (15, 28972), (22, 29038), (26, 29083), (27, 29086), (28, 29116), (39, 29236),

Gene: Ryadel_73 Start: 45599, Stop: 45898, Start Num: 12
Candidate Starts for Ryadel_73:
(5, 45443), (Start: 12 @45599 has 32 MA's), (16, 45635), (19, 45656), (22, 45680), (25, 45710), (27, 45728), (34, 45800), (35, 45809), (36, 45821), (37, 45851),

Gene: SchoolBus_69 Start: 44759, Stop: 45046, Start Num: 12
Candidate Starts for SchoolBus_69:

(5, 44603), (Start: 12 @44759 has 32 MA's), (16, 44795), (19, 44816), (22, 44840), (25, 44870), (27, 44888), (34, 44948), (35, 44957), (36, 44969), (37, 44999),

Gene: Schuy_70 Start: 44550, Stop: 44849, Start Num: 12
Candidate Starts for Schuy_70:
(5, 44394), (Start: 12 @44550 has 32 MA's), (16, 44586), (19, 44607), (22, 44631), (25, 44661), (27, 44679), (34, 44751), (35, 44760), (36, 44772), (37, 44802),

Gene: Shida_69 Start: 44457, Stop: 44756, Start Num: 12
Candidate Starts for Shida_69:
(5, 44301), (Start: 12 @44457 has 32 MA's), (16, 44493), (19, 44514), (22, 44538), (25, 44568), (27, 44586), (34, 44658), (35, 44667), (36, 44679), (37, 44709),

Gene: Smooch_72 Start: 46503, Stop: 46802, Start Num: 12
Candidate Starts for Smooch_72:
(5, 46347), (Start: 12 @46503 has 32 MA's), (16, 46539), (19, 46560), (22, 46584), (24, 46605), (25, 46614), (27, 46632), (34, 46704), (35, 46713), (36, 46725), (37, 46755),

Gene: TChen_29 Start: 26516, Stop: 26830, Start Num: 11
Candidate Starts for TChen_29:
(Start: 11 @26516 has 9 MA's), (18, 26579), (24, 26630), (30, 26705), (31, 26708), (33, 26720), (36, 26750),

Gene: TelAviv_66 Start: 44732, Stop: 45031, Start Num: 12
Candidate Starts for TelAviv_66:
(5, 44576), (Start: 12 @44732 has 32 MA's), (16, 44768), (19, 44789), (22, 44813), (25, 44843), (27, 44861), (34, 44933), (35, 44942), (36, 44954), (37, 44984),

Gene: Tesla_50 Start: 28767, Stop: 29114, Start Num: 8
Candidate Starts for Tesla_50:
(Start: 7 @28743 has 1 MA's), (Start: 8 @28767 has 18 MA's), (Start: 9 @28776 has 2 MA's), (10, 28779), (13, 28812), (14, 28818), (15, 28821), (22, 28887), (26, 28932), (27, 28935), (28, 28965), (39, 29085),

Gene: Toron_30 Start: 26439, Stop: 26747, Start Num: 11
Candidate Starts for Toron_30:
(Start: 8 @26409 has 18 MA's), (Start: 9 @26418 has 2 MA's), (Start: 11 @26439 has 9 MA's), (18, 26502), (29, 26610),

Gene: Vagabond_69 Start: 44595, Stop: 44894, Start Num: 12
Candidate Starts for Vagabond_69:
(5, 44439), (Start: 12 @44595 has 32 MA's), (16, 44631), (19, 44652), (22, 44676), (25, 44706), (27, 44724), (34, 44796), (35, 44805), (36, 44817), (37, 44847),

Gene: VasuNzinga_52 Start: 28836, Stop: 29183, Start Num: 8
Candidate Starts for VasuNzinga_52:
(Start: 8 @28836 has 18 MA's), (Start: 9 @28845 has 2 MA's), (10, 28848), (13, 28881), (14, 28887), (15, 28890), (22, 28956), (26, 29001), (27, 29004), (28, 29034), (39, 29154),

Gene: Vorrps_69 Start: 44807, Stop: 45106, Start Num: 12
Candidate Starts for Vorrps_69:
(5, 44651), (Start: 12 @44807 has 32 MA's), (16, 44843), (19, 44864), (22, 44888), (24, 44909), (25, 44918), (27, 44936), (34, 45008), (35, 45017), (36, 45029), (37, 45059),

Gene: Wildflower_69 Start: 44319, Stop: 44618, Start Num: 12
Candidate Starts for Wildflower_69:
(Start: 12 @44319 has 32 MA's), (16, 44355), (19, 44376), (22, 44400), (24, 44421), (25, 44430), (27, 44448), (34, 44520), (35, 44529), (36, 44541), (37, 44571),

Gene: Winget_70 Start: 45025, Stop: 45324, Start Num: 12
Candidate Starts for Winget_70:
(5, 44869), (Start: 12 @45025 has 32 MA's), (16, 45061), (19, 45082), (22, 45106), (25, 45136), (27, 45154), (34, 45226), (35, 45235), (36, 45247), (37, 45277),

Gene: Wogge42_68 Start: 44466, Stop: 44765, Start Num: 12
Candidate Starts for Wogge42_68:
(5, 44310), (Start: 12 @44466 has 32 MA's), (16, 44502), (19, 44523), (22, 44547), (24, 44568), (25, 44577), (27, 44595), (34, 44667), (35, 44676), (36, 44688), (37, 44718),

Gene: Yoshi_36 Start: 25524, Stop: 25847, Start Num: 9
Candidate Starts for Yoshi_36:
(Start: 8 @25515 has 18 MA's), (Start: 9 @25524 has 2 MA's), (Start: 11 @25545 has 9 MA's), (18, 25608), (29, 25716),

Gene: YoyoKar_67 Start: 44309, Stop: 44608, Start Num: 12
Candidate Starts for YoyoKar_67:
(5, 44153), (Start: 12 @44309 has 32 MA's), (16, 44345), (19, 44366), (22, 44390), (25, 44420), (27, 44438), (34, 44510), (35, 44519), (36, 44531), (37, 44561),

Gene: YungJamal_74 Start: 46217, Stop: 46516, Start Num: 12
Candidate Starts for YungJamal_74:
(5, 46061), (Start: 12 @46217 has 32 MA's), (16, 46253), (19, 46274), (22, 46298), (24, 46319), (25, 46328), (27, 46346), (35, 46427), (36, 46439), (37, 46469),

Gene: Zakhe101_68 Start: 44865, Stop: 45164, Start Num: 12
Candidate Starts for Zakhe101_68:
(5, 44709), (Start: 12 @44865 has 32 MA's), (16, 44901), (19, 44922), (22, 44946), (25, 44976), (27, 44994), (34, 45066), (35, 45075), (36, 45087), (37, 45117),

Gene: Zapner_36 Start: 26592, Stop: 26906, Start Num: 11
Candidate Starts for Zapner_36:
(6, 26466), (Start: 11 @26592 has 9 MA's), (18, 26655), (20, 26664), (24, 26706), (30, 26781), (31, 26784), (33, 26796), (36, 26826),

Gene: Zebo_69 Start: 44768, Stop: 45055, Start Num: 12
Candidate Starts for Zebo_69:
(5, 44612), (Start: 12 @44768 has 32 MA's), (16, 44804), (19, 44825), (22, 44849), (25, 44879), (27, 44897), (34, 44957), (35, 44966), (36, 44978), (37, 45008),