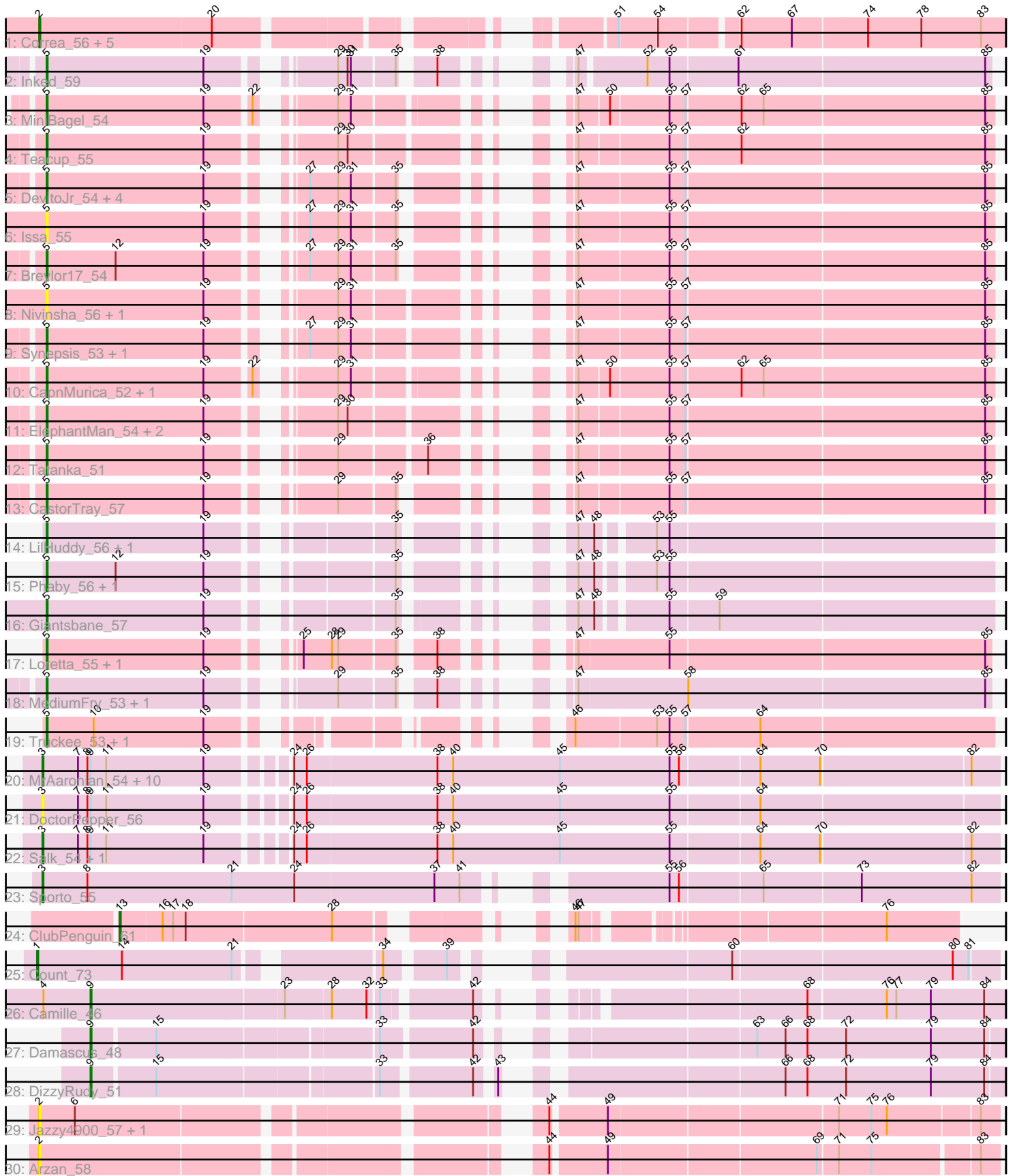


Pham 171472



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 171472 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171472 has 61 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Correa_56, Tribby_61, Nason_59, Xenomorph_56, Elsa_59, Arcadia_59
- Track 2 : Inked_59
- Track 3 : MiniBagel_54
- Track 4 : Teacup_55
- Track 5 : DevitoJr_54, Trustiboi_54, Nightmare_56, ScienceWizSam_55, Gordon_52
- Track 6 : Issa_55
- Track 7 : Breylor17_54
- Track 8 : Nivinsha_56, AreFloNak_57
- Track 9 : Synepsis_53, Darby_53
- Track 10 : CapnMurica_52, Tenno_55
- Track 11 : ElephantMan_54, Niktson_54, Brunswick_55
- Track 12 : Tatanka_51
- Track 13 : CastorTray_57
- Track 14 : LilHuddy_56, Shepard_57
- Track 15 : Phaby_56, Tokki_60
- Track 16 : Giantsbane_57
- Track 17 : Loretta_55, Ingrid_58
- Track 18 : MediumFry_53, Caterpillar_52
- Track 19 : Truckee_53, Makai_55
- Track 20 : MrAaronian_54, BronxBay_54, ProfFrink_57, Raunak_57, Djungelskog_53, Egad_54, Stayer_54, Sloopyjoe_54, Michelle_54, StarLord_54, Shiba_53
- Track 21 : DoctorPepper_56
- Track 22 : Salk_54, Linda_54
- Track 23 : Sporto_55
- Track 24 : ClubPenguin_61
- Track 25 : Count_73
- Track 26 : Camille_46
- Track 27 : Damascus_48
- Track 28 : DizzyRudy_51
- Track 29 : Jazzy4900_57, Sunny4976_56
- Track 30 : Arzan_58

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

The start number called the most often in the published annotations is 5, it was called in 28 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AreFloNak_57, Breylor17_54, Brunswick_55, CapnMurica_52, CastorTray_57, Caterpillar_52, Darby_53, DevitoJr_54, ElephantMan_54, Giantsbane_57, Gordon_52, Ingrid_58, Inked_59, Issa_55, LilHuddy_56, Loretta_55, Makai_55, MediumFry_53, MiniBagel_54, Nightmare_56, Niktson_54, Nivinsha_56, Phaby_56, ScienceWizSam_55, Shepard_57, Synopsis_53, Tatanka_51, Teacup_55, Tenno_55, Tokki_60, Truckee_53, Trustiboi_54,

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

-

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

- Arcadia_59, Arzan_58, BronxBay_54, Camille_46, ClubPenguin_61, Correa_56, Count_73, Damascus_48, DizzyRudy_51, Djungelskog_53, DoctorPepper_56, Egad_54, Elsa_59, Jazzy4900_57, Linda_54, Michelle_54, MrAaronian_54, Nason_59, ProfFrink_57, Raunak_57, Salk_54, Shiba_53, Sloopyjoe_54, Sporto_55, StarLord_54, Stayer_54, Sunny4976_56, Tribby_61, Xenomorph_56,

Summary by start number:

Start 1:

- Found in 1 of 61 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Count_73 (EL),

Start 2:

- Found in 9 of 61 (14.8%) of genes in pham
- Manual Annotations of this start: 6 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia_59 (AM), Arzan_58 (FI), Correa_56 (AM), Elsa_59 (AM), Jazzy4900_57 (FI), Nason_59 (AM), Sunny4976_56 (FI), Tribby_61 (AM), Xenomorph_56 (AM),

Start 3:

- Found in 15 of 61 (24.6%) of genes in pham
- Manual Annotations of this start: 12 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BronxBay_54 (AW), Djungelskog_53 (AW), DoctorPepper_56 (AW), Egad_54 (AW), Linda_54 (AW), Michelle_54 (AW), MrAaronian_54 (AW), ProfFrink_57 (AW), Raunak_57 (AW), Salk_54 (AW), Shiba_53 (AW), Sloopyjoe_54 (AW), Sporto_55 (AW), StarLord_54 (AW), Stayer_54 (AW),

Start 5:

- Found in 32 of 61 (52.5%) of genes in pham
- Manual Annotations of this start: 28 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AreFloNak_57 (AU1), Breylor17_54 (AU1), Brunswick_55 (AU1), CapnMurica_52 (AU1), CastorTray_57 (AU1),

Caterpillar_52 (AU4), Darby_53 (AU1), DevitoJr_54 (AU1), ElephantMan_54 (AU1), Giantsbane_57 (AU2), Gordon_52 (AU1), Ingrid_58 (AU3), Inked_59 (AU), Issa_55 (AU1), LilHuddy_56 (AU2), Loretta_55 (AU3), Makai_55 (AU5), MediumFry_53 (AU4), MiniBage1_54 (AU1), Nightmare_56 (AU1), Niktson_54 (AU1), Nivinsha_56 (AU1), Phaby_56 (AU2), ScienceWizSam_55 (AU1), Shepard_57 (AU2), Synopsis_53 (AU1), Tatanka_51 (AU1), Teacup_55 (AU1), Tenno_55 (AU1), Tokki_60 (AU2), Truckee_53 (AU5), Trustiboi_54 (AU1),

Start 9:

- Found in 17 of 61 (27.9%) of genes in pham
- Manual Annotations of this start: 3 of 51
- Called 17.6% of time when present
- Phage (with cluster) where this start called: Camille_46 (EL), Damascus_48 (EL), DizzyRudy_51 (EL),

Start 13:

- Found in 1 of 61 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ClubPenguin_61 (BI7),

Summary by clusters:

There are 11 clusters represented in this pham: EL, AM, AU1, AU3, AU2, AU5, AU4, AW, BI7, FI, AU,

Info for manual annotations of cluster AM:

- Start number 2 was manually annotated 6 times for cluster AM.

Info for manual annotations of cluster AU:

- Start number 5 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 5 was manually annotated 17 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 5 was manually annotated 4 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 5 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 5 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 5 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AW:

- Start number 3 was manually annotated 12 times for cluster AW.

Info for manual annotations of cluster BI7:

- Start number 13 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster EL:

- Start number 1 was manually annotated 1 time for cluster EL.
- Start number 9 was manually annotated 3 times for cluster EL.

Gene Information:

Gene: Arcadia_59 Start: 35986, Stop: 36783, Start Num: 2

Candidate Starts for Arcadia_59:

(Start: 2 @35986 has 6 MA's), (20, 36148), (51, 36439), (54, 36472), (62, 36538), (67, 36586), (74, 36655), (78, 36706), (83, 36763),

Gene: AreFloNak_57 Start: 37264, Stop: 38031, Start Num: 5

Candidate Starts for AreFloNak_57:

(Start: 5 @37264 has 28 MA's), (19, 37414), (29, 37504), (31, 37516), (47, 37645), (55, 37729), (57, 37744), (85, 38023),

Gene: Arzan_58 Start: 36809, Stop: 37624, Start Num: 2

Candidate Starts for Arzan_58:

(Start: 2 @36809 has 6 MA's), (44, 37223), (49, 37271), (69, 37463), (71, 37481), (75, 37511), (83, 37607),

Gene: Breylor17_54 Start: 37846, Stop: 38604, Start Num: 5

Candidate Starts for Breylor17_54:

(Start: 5 @37846 has 28 MA's), (12, 37912), (19, 37996), (27, 38059), (29, 38086), (31, 38098), (35, 38137), (47, 38218), (55, 38302), (57, 38317), (85, 38596),

Gene: BronxBay_54 Start: 34994, Stop: 35869, Start Num: 3

Candidate Starts for BronxBay_54:

(Start: 3 @34994 has 12 MA's), (7, 35027), (8, 35036), (Start: 9 @35039 has 3 MA's), (11, 35054), (19, 35147), (24, 35210), (26, 35222), (38, 35345), (40, 35360), (45, 35462), (55, 35567), (56, 35576), (64, 35648), (70, 35705), (82, 35843),

Gene: Brunswick_55 Start: 37137, Stop: 37901, Start Num: 5

Candidate Starts for Brunswick_55:

(Start: 5 @37137 has 28 MA's), (19, 37287), (29, 37377), (30, 37386), (47, 37518), (55, 37599), (57, 37614), (85, 37893),

Gene: Camille_46 Start: 32245, Stop: 32997, Start Num: 9

Candidate Starts for Camille_46:

(4, 32200), (Start: 9 @32245 has 3 MA's), (23, 32425), (28, 32467), (32, 32500), (33, 32509), (42, 32584), (68, 32812), (76, 32884), (77, 32893), (79, 32926), (84, 32977),

Gene: CapnMurica_52 Start: 38039, Stop: 38800, Start Num: 5

Candidate Starts for CapnMurica_52:

(Start: 5 @38039 has 28 MA's), (19, 38189), (22, 38228), (29, 38279), (31, 38291), (47, 38417), (50, 38444), (55, 38498), (57, 38513), (62, 38564), (65, 38585), (85, 38792),

Gene: CastorTray_57 Start: 37910, Stop: 38665, Start Num: 5

Candidate Starts for CastorTray_57:

(Start: 5 @37910 has 28 MA's), (19, 38060), (29, 38150), (35, 38201), (47, 38282), (55, 38363), (57, 38378), (85, 38657),

Gene: Caterpillar_52 Start: 36399, Stop: 37157, Start Num: 5

Candidate Starts for Caterpillar_52:

(Start: 5 @36399 has 28 MA's), (19, 36549), (29, 36639), (35, 36690), (38, 36714), (47, 36771), (58, 36873), (85, 37152),

Gene: ClubPenguin_61 Start: 37048, Stop: 37701, Start Num: 13

Candidate Starts for ClubPenguin_61:

(Start: 13 @37048 has 1 MA's), (16, 37087), (17, 37096), (18, 37108), (28, 37243), (46, 37378), (47, 37381), (76, 37633),

Gene: Correa_56 Start: 34853, Stop: 35650, Start Num: 2

Candidate Starts for Correa_56:

(Start: 2 @34853 has 6 MA's), (20, 35015), (51, 35306), (54, 35339), (62, 35405), (67, 35453), (74, 35522), (78, 35573), (83, 35630),

Gene: Count_73 Start: 48676, Stop: 49458, Start Num: 1

Candidate Starts for Count_73:

(Start: 1 @48676 has 1 MA's), (14, 48757), (21, 48862), (34, 48973), (39, 49021), (60, 49213), (80, 49417), (81, 49432),

Gene: Damascus_48 Start: 33623, Stop: 34393, Start Num: 9

Candidate Starts for Damascus_48:

(Start: 9 @33623 has 3 MA's), (15, 33680), (33, 33878), (42, 33959), (63, 34160), (66, 34187), (68, 34208), (72, 34244), (79, 34325), (84, 34376),

Gene: Darby_53 Start: 37084, Stop: 37848, Start Num: 5

Candidate Starts for Darby_53:

(Start: 5 @37084 has 28 MA's), (19, 37234), (27, 37297), (29, 37324), (31, 37336), (47, 37462), (55, 37546), (57, 37561), (85, 37840),

Gene: DevitoJr_54 Start: 37476, Stop: 38234, Start Num: 5

Candidate Starts for DevitoJr_54:

(Start: 5 @37476 has 28 MA's), (19, 37626), (27, 37689), (29, 37716), (31, 37728), (35, 37767), (47, 37848), (55, 37932), (57, 37947), (85, 38226),

Gene: DizzyRudy_51 Start: 33510, Stop: 34280, Start Num: 9

Candidate Starts for DizzyRudy_51:

(Start: 9 @33510 has 3 MA's), (15, 33567), (33, 33765), (42, 33843), (43, 33855), (66, 34074), (68, 34095), (72, 34131), (79, 34212), (84, 34263),

Gene: Djungelskog_53 Start: 34993, Stop: 35868, Start Num: 3

Candidate Starts for Djungelskog_53:

(Start: 3 @34993 has 12 MA's), (7, 35026), (8, 35035), (Start: 9 @35038 has 3 MA's), (11, 35053), (19, 35146), (24, 35209), (26, 35221), (38, 35344), (40, 35359), (45, 35461), (55, 35566), (56, 35575), (64, 35647), (70, 35704), (82, 35842),

Gene: DoctorPepper_56 Start: 34698, Stop: 35573, Start Num: 3

Candidate Starts for DoctorPepper_56:

(Start: 3 @34698 has 12 MA's), (7, 34731), (8, 34740), (Start: 9 @34743 has 3 MA's), (11, 34758), (19, 34851), (24, 34914), (26, 34926), (38, 35049), (40, 35064), (45, 35166), (55, 35271), (64, 35352),

Gene: Egad_54 Start: 34995, Stop: 35870, Start Num: 3

Candidate Starts for Egad_54:

(Start: 3 @34995 has 12 MA's), (7, 35028), (8, 35037), (Start: 9 @35040 has 3 MA's), (11, 35055), (19, 35148), (24, 35211), (26, 35223), (38, 35346), (40, 35361), (45, 35463), (55, 35568), (56, 35577), (64, 35649), (70, 35706), (82, 35844),

Gene: ElephantMan_54 Start: 37760, Stop: 38524, Start Num: 5

Candidate Starts for ElephantMan_54:

(Start: 5 @37760 has 28 MA's), (19, 37910), (29, 38000), (30, 38009), (47, 38141), (55, 38222), (57, 38237), (85, 38516),

Gene: Elsa_59 Start: 35986, Stop: 36783, Start Num: 2

Candidate Starts for Elsa_59:

(Start: 2 @35986 has 6 MA's), (20, 36148), (51, 36439), (54, 36472), (62, 36538), (67, 36586), (74, 36655), (78, 36706), (83, 36763),

Gene: Giantsbane_57 Start: 36358, Stop: 37107, Start Num: 5

Candidate Starts for Giantsbane_57:

(Start: 5 @36358 has 28 MA's), (19, 36508), (35, 36649), (47, 36733), (48, 36748), (55, 36805), (59, 36850),

Gene: Gordon_52 Start: 37901, Stop: 38656, Start Num: 5

Candidate Starts for Gordon_52:

(Start: 5 @37901 has 28 MA's), (19, 38051), (27, 38114), (29, 38141), (31, 38153), (35, 38192), (47, 38273), (55, 38357), (57, 38372), (85, 38651),

Gene: Ingrid_58 Start: 37183, Stop: 37938, Start Num: 5

Candidate Starts for Ingrid_58:

(Start: 5 @37183 has 28 MA's), (19, 37333), (25, 37390), (28, 37417), (29, 37423), (35, 37474), (38, 37498), (47, 37555), (55, 37639), (85, 37933),

Gene: Inked_59 Start: 38306, Stop: 39055, Start Num: 5

Candidate Starts for Inked_59:

(Start: 5 @38306 has 28 MA's), (19, 38456), (29, 38546), (30, 38555), (31, 38558), (35, 38597), (38, 38621), (47, 38678), (52, 38735), (55, 38756), (61, 38819), (85, 39050),

Gene: Issa_55 Start: 37136, Stop: 37894, Start Num: 5

Candidate Starts for Issa_55:

(Start: 5 @37136 has 28 MA's), (19, 37286), (27, 37349), (29, 37376), (31, 37388), (35, 37427), (47, 37508), (55, 37592), (57, 37607), (85, 37886),

Gene: Jazzy4900_57 Start: 37585, Stop: 38403, Start Num: 2

Candidate Starts for Jazzy4900_57:

(Start: 2 @37585 has 6 MA's), (6, 37618), (44, 37999), (49, 38047), (71, 38257), (75, 38287), (76, 38302), (83, 38386),

Gene: LilHuddy_56 Start: 37293, Stop: 38045, Start Num: 5

Candidate Starts for LilHuddy_56:

(Start: 5 @37293 has 28 MA's), (19, 37443), (35, 37584), (47, 37671), (48, 37686), (53, 37731), (55, 37743),

Gene: Linda_54 Start: 34991, Stop: 35866, Start Num: 3

Candidate Starts for Linda_54:

(Start: 3 @34991 has 12 MA's), (7, 35024), (8, 35033), (Start: 9 @35036 has 3 MA's), (11, 35051), (19, 35144), (24, 35207), (26, 35219), (38, 35342), (40, 35357), (45, 35459), (55, 35564), (64, 35645), (70, 35702), (82, 35840),

Gene: Loretta_55 Start: 37183, Stop: 37938, Start Num: 5

Candidate Starts for Loretta_55:

(Start: 5 @37183 has 28 MA's), (19, 37333), (25, 37390), (28, 37417), (29, 37423), (35, 37474), (38, 37498), (47, 37555), (55, 37639), (85, 37933),

Gene: Makai_55 Start: 37391, Stop: 38140, Start Num: 5

Candidate Starts for Makai_55:

(Start: 5 @37391 has 28 MA's), (10, 37436), (19, 37541), (46, 37751), (53, 37826), (55, 37838), (57, 37853), (64, 37922),

Gene: MediumFry_53 Start: 36688, Stop: 37446, Start Num: 5

Candidate Starts for MediumFry_53:

(Start: 5 @36688 has 28 MA's), (19, 36838), (29, 36928), (35, 36979), (38, 37003), (47, 37060), (58, 37162), (85, 37441),

Gene: Michelle_54 Start: 34993, Stop: 35868, Start Num: 3

Candidate Starts for Michelle_54:

(Start: 3 @34993 has 12 MA's), (7, 35026), (8, 35035), (Start: 9 @35038 has 3 MA's), (11, 35053), (19, 35146), (24, 35209), (26, 35221), (38, 35344), (40, 35359), (45, 35461), (55, 35566), (56, 35575), (64, 35647), (70, 35704), (82, 35842),

Gene: MiniBagel_54 Start: 38021, Stop: 38782, Start Num: 5

Candidate Starts for MiniBagel_54:

(Start: 5 @38021 has 28 MA's), (19, 38171), (22, 38210), (29, 38261), (31, 38273), (47, 38399), (50, 38426), (55, 38480), (57, 38495), (62, 38546), (65, 38567), (85, 38774),

Gene: MrAaronian_54 Start: 34993, Stop: 35868, Start Num: 3

Candidate Starts for MrAaronian_54:

(Start: 3 @34993 has 12 MA's), (7, 35026), (8, 35035), (Start: 9 @35038 has 3 MA's), (11, 35053), (19, 35146), (24, 35209), (26, 35221), (38, 35344), (40, 35359), (45, 35461), (55, 35566), (56, 35575), (64, 35647), (70, 35704), (82, 35842),

Gene: Nason_59 Start: 35986, Stop: 36783, Start Num: 2

Candidate Starts for Nason_59:

(Start: 2 @35986 has 6 MA's), (20, 36148), (51, 36439), (54, 36472), (62, 36538), (67, 36586), (74, 36655), (78, 36706), (83, 36763),

Gene: Nightmare_56 Start: 38318, Stop: 39076, Start Num: 5

Candidate Starts for Nightmare_56:

(Start: 5 @38318 has 28 MA's), (19, 38468), (27, 38531), (29, 38558), (31, 38570), (35, 38609), (47, 38690), (55, 38774), (57, 38789), (85, 39068),

Gene: Niktson_54 Start: 37760, Stop: 38524, Start Num: 5

Candidate Starts for Niktson_54:

(Start: 5 @37760 has 28 MA's), (19, 37910), (29, 38000), (30, 38009), (47, 38141), (55, 38222), (57, 38237), (85, 38516),

Gene: Nivinsha_56 Start: 37264, Stop: 38031, Start Num: 5

Candidate Starts for Nivinsha_56:

(Start: 5 @37264 has 28 MA's), (19, 37414), (29, 37504), (31, 37516), (47, 37645), (55, 37729), (57, 37744), (85, 38023),

Gene: Phaby_56 Start: 37911, Stop: 38663, Start Num: 5

Candidate Starts for Phaby_56:

(Start: 5 @37911 has 28 MA's), (12, 37977), (19, 38061), (35, 38202), (47, 38289), (48, 38304), (53, 38349), (55, 38361),

Gene: ProfFrink_57 Start: 34994, Stop: 35869, Start Num: 3

Candidate Starts for ProfFrink_57:

(Start: 3 @34994 has 12 MA's), (7, 35027), (8, 35036), (Start: 9 @35039 has 3 MA's), (11, 35054), (19, 35147), (24, 35210), (26, 35222), (38, 35345), (40, 35360), (45, 35462), (55, 35567), (56, 35576), (64, 35648), (70, 35705), (82, 35843),

Gene: Raunak_57 Start: 34691, Stop: 35566, Start Num: 3

Candidate Starts for Raunak_57:

(Start: 3 @34691 has 12 MA's), (7, 34724), (8, 34733), (Start: 9 @34736 has 3 MA's), (11, 34751), (19, 34844), (24, 34907), (26, 34919), (38, 35042), (40, 35057), (45, 35159), (55, 35264), (56, 35273), (64, 35345), (70, 35402), (82, 35540),

Gene: Salk_54 Start: 34991, Stop: 35866, Start Num: 3

Candidate Starts for Salk_54:

(Start: 3 @34991 has 12 MA's), (7, 35024), (8, 35033), (Start: 9 @35036 has 3 MA's), (11, 35051), (19, 35144), (24, 35207), (26, 35219), (38, 35342), (40, 35357), (45, 35459), (55, 35564), (64, 35645), (70, 35702), (82, 35840),

Gene: ScienceWizSam_55 Start: 37372, Stop: 38130, Start Num: 5

Candidate Starts for ScienceWizSam_55:

(Start: 5 @37372 has 28 MA's), (19, 37522), (27, 37585), (29, 37612), (31, 37624), (35, 37663), (47, 37744), (55, 37828), (57, 37843), (85, 38122),

Gene: Shepard_57 Start: 37134, Stop: 37886, Start Num: 5

Candidate Starts for Shepard_57:

(Start: 5 @37134 has 28 MA's), (19, 37284), (35, 37425), (47, 37512), (48, 37527), (53, 37572), (55, 37584),

Gene: Shiba_53 Start: 34691, Stop: 35566, Start Num: 3

Candidate Starts for Shiba_53:

(Start: 3 @34691 has 12 MA's), (7, 34724), (8, 34733), (Start: 9 @34736 has 3 MA's), (11, 34751), (19, 34844), (24, 34907), (26, 34919), (38, 35042), (40, 35057), (45, 35159), (55, 35264), (56, 35273), (64, 35345), (70, 35402), (82, 35540),

Gene: Sloopyjoe_54 Start: 34995, Stop: 35870, Start Num: 3

Candidate Starts for Sloopyjoe_54:

(Start: 3 @34995 has 12 MA's), (7, 35028), (8, 35037), (Start: 9 @35040 has 3 MA's), (11, 35055), (19, 35148), (24, 35211), (26, 35223), (38, 35346), (40, 35361), (45, 35463), (55, 35568), (56, 35577), (64, 35649), (70, 35706), (82, 35844),

Gene: Sporto_55 Start: 36496, Stop: 37332, Start Num: 3

Candidate Starts for Sporto_55:

(Start: 3 @36496 has 12 MA's), (8, 36538), (21, 36676), (24, 36736), (37, 36868), (41, 36892), (55, 37027), (56, 37036), (65, 37111), (73, 37201), (82, 37306),

Gene: StarLord_54 Start: 34994, Stop: 35869, Start Num: 3

Candidate Starts for StarLord_54:

(Start: 3 @34994 has 12 MA's), (7, 35027), (8, 35036), (Start: 9 @35039 has 3 MA's), (11, 35054), (19, 35147), (24, 35210), (26, 35222), (38, 35345), (40, 35360), (45, 35462), (55, 35567), (56, 35576), (64, 35648), (70, 35705), (82, 35843),

Gene: Stayer_54 Start: 34991, Stop: 35866, Start Num: 3

Candidate Starts for Stayer_54:

(Start: 3 @34991 has 12 MA's), (7, 35024), (8, 35033), (Start: 9 @35036 has 3 MA's), (11, 35051), (19, 35144), (24, 35207), (26, 35219), (38, 35342), (40, 35357), (45, 35459), (55, 35564), (56, 35573), (64, 35645), (70, 35702), (82, 35840),

Gene: Sunny4976_56 Start: 37585, Stop: 38403, Start Num: 2

Candidate Starts for Sunny4976_56:

(Start: 2 @37585 has 6 MA's), (6, 37618), (44, 37999), (49, 38047), (71, 38257), (75, 38287), (76, 38302), (83, 38386),

Gene: Synopsis_53 Start: 37431, Stop: 38198, Start Num: 5

Candidate Starts for Synopsis_53:

(Start: 5 @37431 has 28 MA's), (19, 37581), (27, 37644), (29, 37671), (31, 37683), (47, 37812), (55, 37896), (57, 37911), (85, 38190),

Gene: Tatanka_51 Start: 37563, Stop: 38327, Start Num: 5

Candidate Starts for Tatanka_51:

(Start: 5 @37563 has 28 MA's), (19, 37713), (29, 37803), (36, 37878), (47, 37944), (55, 38025), (57, 38040), (85, 38319),

Gene: Teacup_55 Start: 37789, Stop: 38553, Start Num: 5

Candidate Starts for Teacup_55:

(Start: 5 @37789 has 28 MA's), (19, 37939), (29, 38029), (30, 38038), (47, 38170), (55, 38251), (57, 38266), (62, 38317), (85, 38545),

Gene: Tenno_55 Start: 38094, Stop: 38855, Start Num: 5

Candidate Starts for Tenno_55:

(Start: 5 @38094 has 28 MA's), (19, 38244), (22, 38283), (29, 38334), (31, 38346), (47, 38472), (50, 38499), (55, 38553), (57, 38568), (62, 38619), (65, 38640), (85, 38847),

Gene: Tokki_60 Start: 37524, Stop: 38276, Start Num: 5

Candidate Starts for Tokki_60:

(Start: 5 @37524 has 28 MA's), (12, 37590), (19, 37674), (35, 37815), (47, 37902), (48, 37917), (53, 37962), (55, 37974),

Gene: Tribby_61 Start: 36239, Stop: 37036, Start Num: 2

Candidate Starts for Tribby_61:

(Start: 2 @36239 has 6 MA's), (20, 36401), (51, 36692), (54, 36725), (62, 36791), (67, 36839), (74, 36908), (78, 36959), (83, 37016),

Gene: Truckee_53 Start: 37181, Stop: 37930, Start Num: 5

Candidate Starts for Truckee_53:

(Start: 5 @37181 has 28 MA's), (10, 37226), (19, 37331), (46, 37541), (53, 37616), (55, 37628), (57, 37643), (64, 37712),

Gene: Trustiboi_54 Start: 37632, Stop: 38390, Start Num: 5

Candidate Starts for Trustiboi_54:

(Start: 5 @37632 has 28 MA's), (19, 37782), (27, 37845), (29, 37872), (31, 37884), (35, 37923), (47, 38004), (55, 38088), (57, 38103), (85, 38382),

Gene: Xenomorph_56 Start: 35657, Stop: 36454, Start Num: 2

Candidate Starts for Xenomorph_56:

(Start: 2 @35657 has 6 MA's), (20, 35819), (51, 36110), (54, 36143), (62, 36209), (67, 36257), (74, 36326), (78, 36377), (83, 36434),