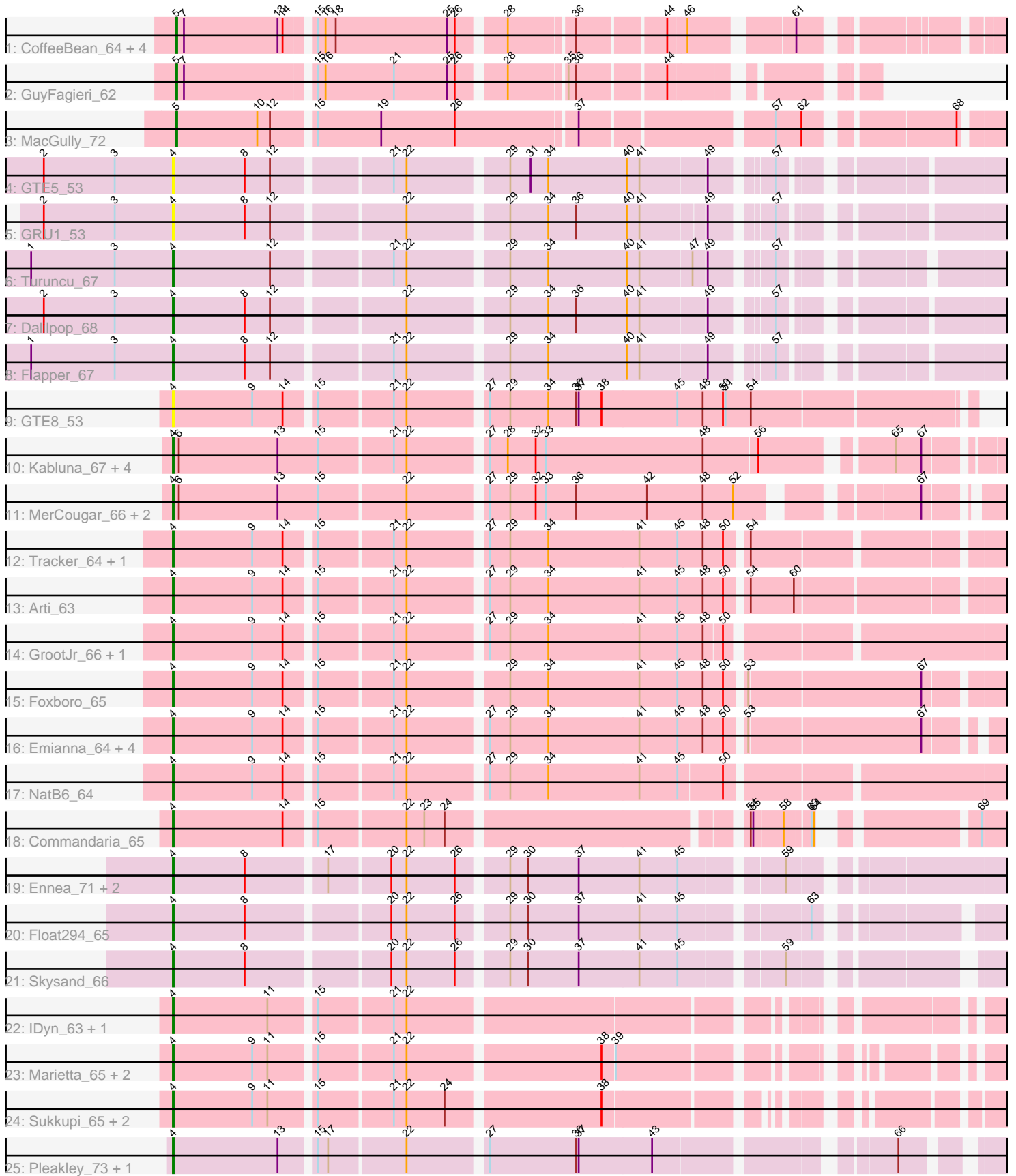


# Pham 156440



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 156440 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156440 has 49 members, 6 are drafts.

Phages represented in each track:

- Track 1 : CoffeeBean\_64, Braxoaddie\_63, Polyuyuki\_63, Maselop\_63, Apiary\_63
- Track 2 : GuyFagieri\_62
- Track 3 : MacGully\_72
- Track 4 : GTE5\_53
- Track 5 : GRU1\_53
- Track 6 : Turuncu\_67
- Track 7 : Dalilpop\_68
- Track 8 : Flapper\_67
- Track 9 : GTE8\_53
- Track 10 : Kabluna\_67, NosilaM\_66, SuperSulley\_66, Bonum\_68, Buggaboo\_66
- Track 11 : MerCougar\_66, StarStruck\_65, Outis\_65
- Track 12 : Tracker\_64, Wheezy\_64
- Track 13 : Arti\_63
- Track 14 : GrootJr\_66, NovumRegina\_64
- Track 15 : Foxboro\_65
- Track 16 : Emianna\_64, Jifall16\_63, Phomeo\_63, Kurt\_64, KidneyBean\_64
- Track 17 : NatB6\_64
- Track 18 : Commandaria\_65
- Track 19 : Ennea\_71, Patio\_66, Lollipop1437\_68
- Track 20 : Float294\_65
- Track 21 : Skysand\_66
- Track 22 : IDyn\_63, HubbaBubba\_59
- Track 23 : Marietta\_65, NadineRae\_64, WhoseManz\_64
- Track 24 : Sukkupi\_65, Yndexa\_65, BiPauneto\_67
- Track 25 : Pleakley\_73, Fury\_73

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

The start number called the most often in the published annotations is 4, it was called in 37 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti\_63, BiPauneto\_67, Bonum\_68, Buggaboo\_66, Commandaria\_65, Dalilpop\_68, Emianna\_64, Ennea\_71, Flapper\_67, Float294\_65, Foxboro\_65, Fury\_73, GRU1\_53,

GTE5\_53, GTE8\_53, GrootJr\_66, HubbaBubba\_59, IDyn\_63, Jifall16\_63, Kabluna\_67, KidneyBean\_64, Kurt\_64, Lollipop1437\_68, Marietta\_65, MerCougar\_66, NadineRae\_64, NatB6\_64, NosilaM\_66, NovumRegina\_64, Outis\_65, Patio\_66, Phomeo\_63, Pleakley\_73, Skysand\_66, StarStruck\_65, Sukkupi\_65, SuperSulley\_66, Tracker\_64, Turuncu\_67, Wheezy\_64, WhoseManz\_64, Yndexa\_65,

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

- 

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

- Apiary\_63, Braxoaddie\_63, CoffeeBean\_64, GuyFagieri\_62, MacGully\_72, Maselop\_63, Polyuyuki\_63,

### Summary by start number:

Start 4:

- Found in 42 of 49 ( 85.7% ) of genes in pham
- Manual Annotations of this start: 37 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti\_63 (CR2), BiPauneto\_67 (CR4), Bonum\_68 (CR2), Buggaboo\_66 (CR2), Commandaria\_65 (CR2), Dalilpop\_68 (CR1), Emianna\_64 (CR2), Ennea\_71 (CR3), Flapper\_67 (CR1), Float294\_65 (CR3), Foxboro\_65 (CR2), Fury\_73 (CR5), GRU1\_53 (CR1), GTE5\_53 (CR1), GTE8\_53 (CR2), GrootJr\_66 (CR2), HubbaBubba\_59 (CR4), IDyn\_63 (CR4), Jifall16\_63 (CR2), Kabluna\_67 (CR2), KidneyBean\_64 (CR2), Kurt\_64 (CR2), Lollipop1437\_68 (CR3), Marietta\_65 (CR4), MerCougar\_66 (CR2), NadineRae\_64 (CR4), NatB6\_64 (CR2), NosilaM\_66 (CR2), NovumRegina\_64 (CR2), Outis\_65 (CR2), Patio\_66 (CR3), Phomeo\_63 (CR2), Pleakley\_73 (CR5), Skysand\_66 (CR3), StarStruck\_65 (CR2), Sukkupi\_65 (CR4), SuperSulley\_66 (CR2), Tracker\_64 (CR2), Turuncu\_67 (CR1), Wheezy\_64 (CR2), WhoseManz\_64 (CR4), Yndexa\_65 (CR4),

Start 5:

- Found in 7 of 49 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 6 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary\_63 (CR), Braxoaddie\_63 (CR), CoffeeBean\_64 (CR), GuyFagieri\_62 (CR), MacGully\_72 (CR), Maselop\_63 (CR), Polyuyuki\_63 (CR),

### Summary by clusters:

There are 6 clusters represented in this pham: CR2, CR3, CR1, CR4, CR5, CR,

Info for manual annotations of cluster CR:

- Start number 5 was manually annotated 6 times for cluster CR.

Info for manual annotations of cluster CR1:

- Start number 4 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 4 was manually annotated 20 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 4 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 4 was manually annotated 7 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 4 was manually annotated 2 times for cluster CR5.

### **Gene Information:**

Gene: Apiary\_63 Start: 47507, Stop: 46644, Start Num: 5

Candidate Starts for Apiary\_63:

(Start: 5 @47507 has 6 MA's), (7, 47498), (13, 47387), (14, 47381), (15, 47354), (16, 47345), (18, 47333), (25, 47201), (26, 47192), (28, 47144), (36, 47072), (44, 46976), (46, 46955), (61, 46850),

Gene: Arti\_63 Start: 49955, Stop: 49029, Start Num: 4

Candidate Starts for Arti\_63:

(Start: 4 @49955 has 37 MA's), (9, 49862), (14, 49826), (15, 49796), (21, 49712), (22, 49697), (27, 49613), (29, 49589), (34, 49544), (41, 49439), (45, 49394), (48, 49364), (50, 49340), (54, 49319), (60, 49268),

Gene: BiPauneto\_67 Start: 49589, Stop: 48723, Start Num: 4

Candidate Starts for BiPauneto\_67:

(Start: 4 @49589 has 37 MA's), (9, 49496), (11, 49478), (15, 49430), (21, 49346), (22, 49331), (24, 49286), (38, 49115),

Gene: Bonum\_68 Start: 50826, Stop: 49897, Start Num: 4

Candidate Starts for Bonum\_68:

(Start: 4 @50826 has 37 MA's), (6, 50820), (13, 50703), (15, 50655), (21, 50571), (22, 50556), (27, 50472), (28, 50451), (32, 50418), (33, 50406), (48, 50220), (56, 50157), (65, 50025), (67, 49995),

Gene: Braxoaddie\_63 Start: 47496, Stop: 46633, Start Num: 5

Candidate Starts for Braxoaddie\_63:

(Start: 5 @47496 has 6 MA's), (7, 47487), (13, 47376), (14, 47370), (15, 47343), (16, 47334), (18, 47322), (25, 47190), (26, 47181), (28, 47133), (36, 47061), (44, 46965), (46, 46944), (61, 46839),

Gene: Buggaboo\_66 Start: 51377, Stop: 50454, Start Num: 4

Candidate Starts for Buggaboo\_66:

(Start: 4 @51377 has 37 MA's), (6, 51371), (13, 51254), (15, 51206), (21, 51122), (22, 51107), (27, 51023), (28, 51002), (32, 50969), (33, 50957), (48, 50771), (56, 50705), (65, 50570), (67, 50540),

Gene: CoffeeBean\_64 Start: 47454, Stop: 46591, Start Num: 5

Candidate Starts for CoffeeBean\_64:

(Start: 5 @47454 has 6 MA's), (7, 47445), (13, 47334), (14, 47328), (15, 47301), (16, 47292), (18, 47280), (25, 47148), (26, 47139), (28, 47091), (36, 47019), (44, 46923), (46, 46902), (61, 46797),

Gene: Commandaria\_65 Start: 51201, Stop: 50332, Start Num: 4

Candidate Starts for Commandaria\_65:

(Start: 4 @51201 has 37 MA's), (14, 51072), (15, 51042), (22, 50943), (23, 50922), (24, 50898), (54, 50583), (55, 50580), (58, 50547), (63, 50520), (64, 50517), (69, 50373),

Gene: Dalilpop\_68 Start: 52146, Stop: 51265, Start Num: 4

Candidate Starts for Dalilpop\_68:

(2, 52299), (3, 52215), (Start: 4 @52146 has 37 MA's), (8, 52062), (12, 52032), (22, 51888), (29, 51780), (34, 51735), (36, 51702), (40, 51645), (41, 51630), (49, 51555), (57, 51498),

Gene: Emianna\_64 Start: 51187, Stop: 50270, Start Num: 4

Candidate Starts for Emianna\_64:

(Start: 4 @51187 has 37 MA's), (9, 51094), (14, 51058), (15, 51028), (21, 50944), (22, 50929), (27, 50845), (29, 50821), (34, 50776), (41, 50671), (45, 50626), (48, 50596), (50, 50572), (53, 50554), (67, 50356),

Gene: Ennea\_71 Start: 52225, Stop: 51320, Start Num: 4

Candidate Starts for Ennea\_71:

(Start: 4 @52225 has 37 MA's), (8, 52141), (17, 52054), (20, 51985), (22, 51967), (26, 51910), (29, 51859), (30, 51838), (37, 51778), (41, 51709), (45, 51664), (59, 51556),

Gene: Flapper\_67 Start: 51337, Stop: 50456, Start Num: 4

Candidate Starts for Flapper\_67:

(1, 51505), (3, 51406), (Start: 4 @51337 has 37 MA's), (8, 51253), (12, 51223), (21, 51094), (22, 51079), (29, 50971), (34, 50926), (40, 50836), (41, 50821), (49, 50746), (57, 50689),

Gene: Float294\_65 Start: 51940, Stop: 51053, Start Num: 4

Candidate Starts for Float294\_65:

(Start: 4 @51940 has 37 MA's), (8, 51856), (20, 51700), (22, 51682), (26, 51625), (29, 51574), (30, 51553), (37, 51493), (41, 51424), (45, 51379), (63, 51244),

Gene: Foxboro\_65 Start: 51712, Stop: 50783, Start Num: 4

Candidate Starts for Foxboro\_65:

(Start: 4 @51712 has 37 MA's), (9, 51619), (14, 51583), (15, 51553), (21, 51469), (22, 51454), (29, 51346), (34, 51301), (41, 51196), (45, 51151), (48, 51121), (50, 51097), (53, 51079), (67, 50881),

Gene: Fury\_73 Start: 50445, Stop: 49570, Start Num: 4

Candidate Starts for Fury\_73:

(Start: 4 @50445 has 37 MA's), (13, 50322), (15, 50286), (17, 50274), (22, 50187), (27, 50103), (36, 50001), (37, 49998), (43, 49914), (66, 49674),

Gene: GRU1\_53 Start: 43185, Stop: 42307, Start Num: 4

Candidate Starts for GRU1\_53:

(2, 43338), (3, 43254), (Start: 4 @43185 has 37 MA's), (8, 43101), (12, 43071), (22, 42927), (29, 42819), (34, 42774), (36, 42741), (40, 42684), (41, 42669), (49, 42597), (57, 42540),

Gene: GTE5\_53 Start: 44217, Stop: 43333, Start Num: 4

Candidate Starts for GTE5\_53:

(2, 44370), (3, 44286), (Start: 4 @44217 has 37 MA's), (8, 44133), (12, 44103), (21, 43974), (22, 43959), (29, 43851), (31, 43827), (34, 43806), (40, 43716), (41, 43701), (49, 43626), (57, 43569),

Gene: GTE8\_53 Start: 44425, Stop: 43535, Start Num: 4

Candidate Starts for GTE8\_53:

(Start: 4 @44425 has 37 MA's), (9, 44332), (14, 44296), (15, 44266), (21, 44182), (22, 44167), (27, 44083), (29, 44059), (34, 44014), (36, 43981), (37, 43978), (38, 43951), (45, 43864), (48, 43834), (50, 43810), (51, 43807), (54, 43777),

Gene: GrootJr\_66 Start: 50581, Stop: 49652, Start Num: 4

Candidate Starts for GrootJr\_66:

(Start: 4 @50581 has 37 MA's), (9, 50488), (14, 50452), (15, 50422), (21, 50338), (22, 50323), (27, 50239), (29, 50215), (34, 50170), (41, 50065), (45, 50020), (48, 49990), (50, 49969),

Gene: GuyFagieri\_62 Start: 47543, Stop: 46830, Start Num: 5

Candidate Starts for GuyFagieri\_62:

(Start: 5 @47543 has 6 MA's), (7, 47534), (15, 47390), (16, 47381), (21, 47300), (25, 47237), (26, 47228), (28, 47180), (35, 47117), (36, 47108), (44, 47012),

Gene: HubbaBubba\_59 Start: 46075, Stop: 45227, Start Num: 4

Candidate Starts for HubbaBubba\_59:

(Start: 4 @46075 has 37 MA's), (11, 45964), (15, 45916), (21, 45832), (22, 45817),

Gene: IDyn\_63 Start: 47510, Stop: 46650, Start Num: 4

Candidate Starts for IDyn\_63:

(Start: 4 @47510 has 37 MA's), (11, 47399), (15, 47351), (21, 47267), (22, 47252),

Gene: Jifall16\_63 Start: 50843, Stop: 49926, Start Num: 4

Candidate Starts for Jifall16\_63:

(Start: 4 @50843 has 37 MA's), (9, 50750), (14, 50714), (15, 50684), (21, 50600), (22, 50585), (27, 50501), (29, 50477), (34, 50432), (41, 50327), (45, 50282), (48, 50252), (50, 50228), (53, 50210), (67, 50012),

Gene: Kabluna\_67 Start: 50155, Stop: 49232, Start Num: 4

Candidate Starts for Kabluna\_67:

(Start: 4 @50155 has 37 MA's), (6, 50149), (13, 50032), (15, 49984), (21, 49900), (22, 49885), (27, 49801), (28, 49780), (32, 49747), (33, 49735), (48, 49549), (56, 49486), (65, 49354), (67, 49324),

Gene: KidneyBean\_64 Start: 50967, Stop: 50050, Start Num: 4

Candidate Starts for KidneyBean\_64:

(Start: 4 @50967 has 37 MA's), (9, 50874), (14, 50838), (15, 50808), (21, 50724), (22, 50709), (27, 50625), (29, 50601), (34, 50556), (41, 50451), (45, 50406), (48, 50376), (50, 50352), (53, 50334), (67, 50136),

Gene: Kurt\_64 Start: 51202, Stop: 50285, Start Num: 4

Candidate Starts for Kurt\_64:

(Start: 4 @51202 has 37 MA's), (9, 51109), (14, 51073), (15, 51043), (21, 50959), (22, 50944), (27, 50860), (29, 50836), (34, 50791), (41, 50686), (45, 50641), (48, 50611), (50, 50587), (53, 50569), (67, 50371),

Gene: Lollipop1437\_68 Start: 51905, Stop: 51018, Start Num: 4

Candidate Starts for Lollipop1437\_68:

(Start: 4 @51905 has 37 MA's), (8, 51821), (17, 51734), (20, 51665), (22, 51647), (26, 51590), (29, 51539), (30, 51518), (37, 51458), (41, 51389), (45, 51344), (59, 51236),

Gene: MacGully\_72 Start: 50738, Stop: 49836, Start Num: 5

Candidate Starts for MacGully\_72:

(Start: 5 @50738 has 6 MA's), (10, 50642), (12, 50627), (15, 50582), (19, 50507), (26, 50420), (37, 50282), (57, 50075), (62, 50048), (68, 49895),

Gene: Marietta\_65 Start: 47622, Stop: 46780, Start Num: 4

Candidate Starts for Marietta\_65:

(Start: 4 @47622 has 37 MA's), (9, 47529), (11, 47511), (15, 47463), (21, 47379), (22, 47364), (38, 47148), (39, 47136),

Gene: Maselop\_63 Start: 47530, Stop: 46667, Start Num: 5

Candidate Starts for Maselop\_63:

(Start: 5 @47530 has 6 MA's), (7, 47521), (13, 47410), (14, 47404), (15, 47377), (16, 47368), (18, 47356), (25, 47224), (26, 47215), (28, 47167), (36, 47095), (44, 46999), (46, 46978), (61, 46873),

Gene: MerCougar\_66 Start: 51512, Stop: 50613, Start Num: 4

Candidate Starts for MerCougar\_66:

(Start: 4 @51512 has 37 MA's), (6, 51506), (13, 51389), (15, 51341), (22, 51242), (27, 51158), (29, 51134), (32, 51104), (33, 51092), (36, 51056), (42, 50972), (48, 50906), (52, 50870), (67, 50699),

Gene: NadineRae\_64 Start: 47231, Stop: 46386, Start Num: 4

Candidate Starts for NadineRae\_64:

(Start: 4 @47231 has 37 MA's), (9, 47138), (11, 47120), (15, 47072), (21, 46988), (22, 46973), (38, 46757), (39, 46745),

Gene: NatB6\_64 Start: 50271, Stop: 49339, Start Num: 4

Candidate Starts for NatB6\_64:

(Start: 4 @50271 has 37 MA's), (9, 50178), (14, 50142), (15, 50112), (21, 50028), (22, 50013), (27, 49929), (29, 49905), (34, 49860), (41, 49755), (45, 49710), (50, 49659),

Gene: NosilaM\_66 Start: 50826, Stop: 49909, Start Num: 4

Candidate Starts for NosilaM\_66:

(Start: 4 @50826 has 37 MA's), (6, 50820), (13, 50703), (15, 50655), (21, 50571), (22, 50556), (27, 50472), (28, 50451), (32, 50418), (33, 50406), (48, 50220), (56, 50154), (65, 50019), (67, 49989),

Gene: NovumRegina\_64 Start: 50580, Stop: 49651, Start Num: 4

Candidate Starts for NovumRegina\_64:

(Start: 4 @50580 has 37 MA's), (9, 50487), (14, 50451), (15, 50421), (21, 50337), (22, 50322), (27, 50238), (29, 50214), (34, 50169), (41, 50064), (45, 50019), (48, 49989), (50, 49968),

Gene: Outis\_65 Start: 51027, Stop: 50125, Start Num: 4

Candidate Starts for Outis\_65:

(Start: 4 @51027 has 37 MA's), (6, 51021), (13, 50904), (15, 50856), (22, 50757), (27, 50673), (29, 50649), (32, 50619), (33, 50607), (36, 50571), (42, 50487), (48, 50421), (52, 50385), (67, 50217),

Gene: Patio\_66 Start: 50962, Stop: 50075, Start Num: 4

Candidate Starts for Patio\_66:

(Start: 4 @50962 has 37 MA's), (8, 50878), (17, 50791), (20, 50722), (22, 50704), (26, 50647), (29, 50596), (30, 50575), (37, 50515), (41, 50446), (45, 50401), (59, 50293),

Gene: Phomeo\_63 Start: 50839, Stop: 49922, Start Num: 4

Candidate Starts for Phomeo\_63:

(Start: 4 @50839 has 37 MA's), (9, 50746), (14, 50710), (15, 50680), (21, 50596), (22, 50581), (27, 50497), (29, 50473), (34, 50428), (41, 50323), (45, 50278), (48, 50248), (50, 50224), (53, 50206), (67, 50008),

Gene: Pleakley\_73 Start: 50446, Stop: 49571, Start Num: 4

Candidate Starts for Pleakley\_73:

(Start: 4 @50446 has 37 MA's), (13, 50323), (15, 50287), (17, 50275), (22, 50188), (27, 50104), (36, 50002), (37, 49999), (43, 49915), (66, 49675),

Gene: Polyuyki\_63 Start: 47519, Stop: 46656, Start Num: 5

Candidate Starts for Polyuyki\_63:

(Start: 5 @47519 has 6 MA's), (7, 47510), (13, 47399), (14, 47393), (15, 47366), (16, 47357), (18, 47345), (25, 47213), (26, 47204), (28, 47156), (36, 47084), (44, 46988), (46, 46967), (61, 46862),

Gene: Skysand\_66 Start: 51440, Stop: 50556, Start Num: 4

Candidate Starts for Skysand\_66:

(Start: 4 @51440 has 37 MA's), (8, 51356), (20, 51200), (22, 51182), (26, 51125), (29, 51074), (30, 51053), (37, 50993), (41, 50924), (45, 50879), (59, 50771),

Gene: StarStruck\_65 Start: 51027, Stop: 50125, Start Num: 4

Candidate Starts for StarStruck\_65:

(Start: 4 @51027 has 37 MA's), (6, 51021), (13, 50904), (15, 50856), (22, 50757), (27, 50673), (29, 50649), (32, 50619), (33, 50607), (36, 50571), (42, 50487), (48, 50421), (52, 50385), (67, 50217),

Gene: Sukkupi\_65 Start: 49462, Stop: 48614, Start Num: 4

Candidate Starts for Sukkupi\_65:

(Start: 4 @49462 has 37 MA's), (9, 49369), (11, 49351), (15, 49303), (21, 49219), (22, 49204), (24, 49159), (38, 48988),

Gene: SuperSulley\_66 Start: 51377, Stop: 50454, Start Num: 4

Candidate Starts for SuperSulley\_66:

(Start: 4 @51377 has 37 MA's), (6, 51371), (13, 51254), (15, 51206), (21, 51122), (22, 51107), (27, 51023), (28, 51002), (32, 50969), (33, 50957), (48, 50771), (56, 50705), (65, 50570), (67, 50540),

Gene: Tracker\_64 Start: 50015, Stop: 49095, Start Num: 4

Candidate Starts for Tracker\_64:

(Start: 4 @50015 has 37 MA's), (9, 49922), (14, 49886), (15, 49856), (21, 49772), (22, 49757), (27, 49673), (29, 49649), (34, 49604), (41, 49499), (45, 49454), (48, 49424), (50, 49400), (54, 49379),

Gene: Turuncu\_67 Start: 51020, Stop: 50145, Start Num: 4

Candidate Starts for Turuncu\_67:

(1, 51188), (3, 51089), (Start: 4 @51020 has 37 MA's), (12, 50906), (21, 50777), (22, 50762), (29, 50654), (34, 50609), (40, 50519), (41, 50504), (47, 50444), (49, 50429), (57, 50372),

Gene: Wheezy\_64 Start: 50229, Stop: 49303, Start Num: 4

Candidate Starts for Wheezy\_64:

(Start: 4 @50229 has 37 MA's), (9, 50136), (14, 50100), (15, 50070), (21, 49986), (22, 49971), (27, 49887), (29, 49863), (34, 49818), (41, 49713), (45, 49668), (48, 49638), (50, 49614), (54, 49593),

Gene: WhoseManz\_64 Start: 47289, Stop: 46396, Start Num: 4

Candidate Starts for WhoseManz\_64:

(Start: 4 @47289 has 37 MA's), (9, 47196), (11, 47178), (15, 47130), (21, 47046), (22, 47031), (38, 46815), (39, 46803),

Gene: Yndexa\_65 Start: 49462, Stop: 48614, Start Num: 4

Candidate Starts for Yndexa\_65:

(Start: 4 @49462 has 37 MA's), (9, 49369), (11, 49351), (15, 49303), (21, 49219), (22, 49204), (24, 49159), (38, 48988),