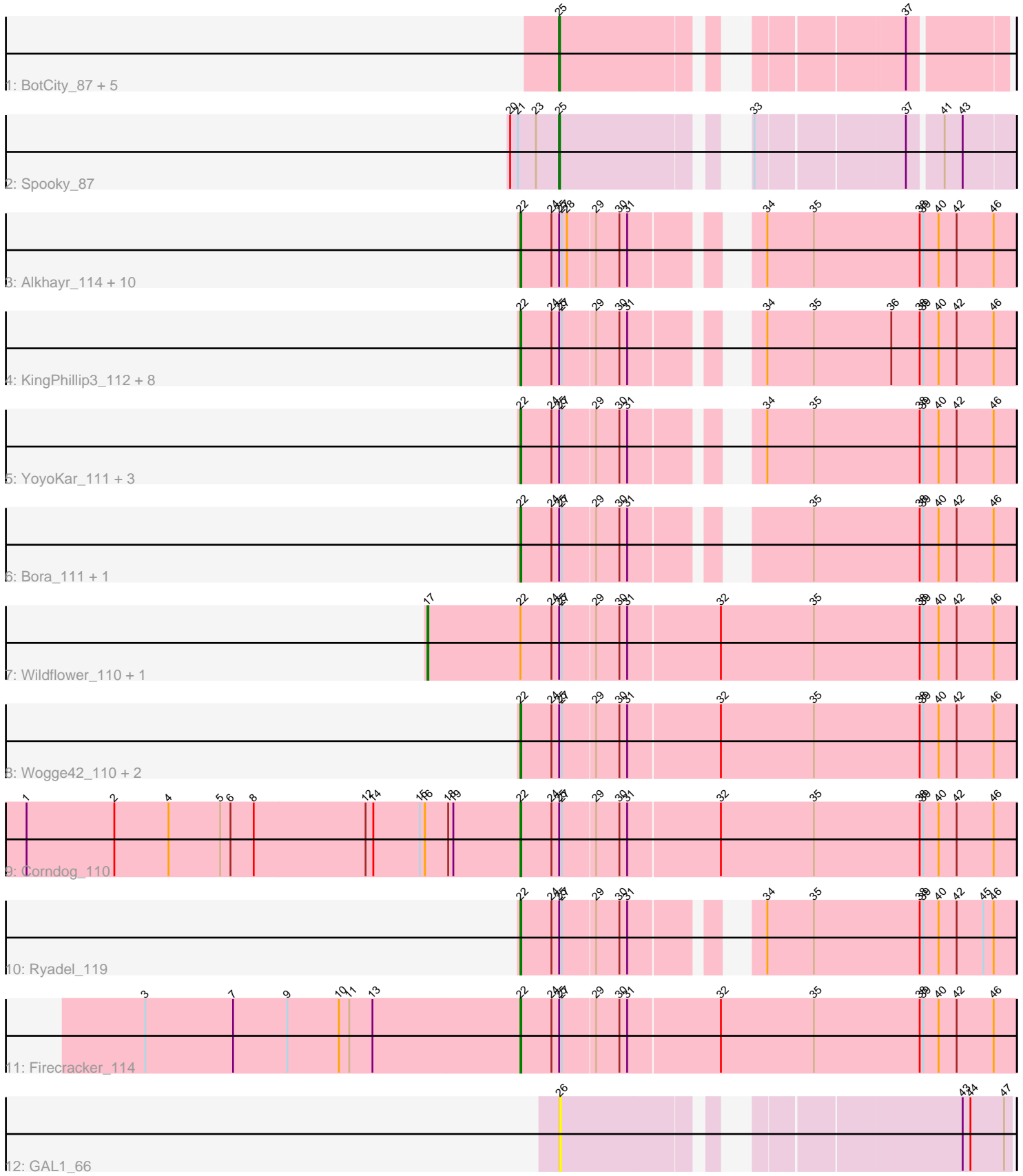


Pham 311767



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 311767 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311767 has 42 members, 4 are drafts.

Phages represented in each track:

- Track 1 : BotCity\_87, Lutum\_86, Getalong\_88, Phabuloso\_92, Kenna\_80, BENtherdunthat\_85
- Track 2 : Spooky\_87
- Track 3 : Alkhayr\_114, Murai\_114, FoulBall\_113, Smooch\_112, Catdawg\_115, Schuy\_114, MadKillah\_117, Imara\_110, Vagabond\_113, Winget\_114, YungJamal\_111
- Track 4 : KingPhillip3\_112, Blessica\_114, SchoolBus\_115, JangDynasty\_112, Idergollasper\_118, NiebruSaylor\_114, Shida\_114, TelAviv\_111, Familton\_116
- Track 5 : YoyoKar\_111, Krili\_116, Vorrps\_114, Mori\_114
- Track 6 : Bora\_111, Zakhe101\_110
- Track 7 : Wildflower\_110, Ashwin\_110
- Track 8 : Wogge42\_110, Dylan\_108, Zebo\_113
- Track 9 : Corndog\_110
- Track 10 : Ryadel\_119
- Track 11 : Firecracker\_114
- Track 12 : GAL1\_66

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

The start number called the most often in the published annotations is 22, it was called in 29 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alkhayr\_114, Blessica\_114, Bora\_111, Catdawg\_115, Corndog\_110, Dylan\_108, Familton\_116, Firecracker\_114, FoulBall\_113, Idergollasper\_118, Imara\_110, JangDynasty\_112, KingPhillip3\_112, Krili\_116, MadKillah\_117, Mori\_114, Murai\_114, NiebruSaylor\_114, Ryadel\_119, SchoolBus\_115, Schuy\_114, Shida\_114, Smooch\_112, TelAviv\_111, Vagabond\_113, Vorrps\_114, Winget\_114, Wogge42\_110, YoyoKar\_111, YungJamal\_111, Zakhe101\_110, Zebo\_113,

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

- Ashwin\_110, Wildflower\_110,

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

- BENtherdunthat\_85, BotCity\_87, GAL1\_66, Getalong\_88, Kenna\_80, Lutum\_86, Phabuloso\_92, Spooky\_87,

### Summary by start number:

#### Start 17:

- Found in 2 of 42 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 2 of 38
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ashwin\_110 (O), Wildflower\_110 (O),

#### Start 22:

- Found in 34 of 42 ( 81.0% ) of genes in pham
- Manual Annotations of this start: 29 of 38
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Alkhayr\_114 (O), Blessica\_114 (O), Bora\_111 (O), Catdawg\_115 (O), Corndog\_110 (O), Dylan\_108 (O), Familton\_116 (O), Firecracker\_114 (O), FoulBall\_113 (O), Idergollasper\_118 (O), Imara\_110 (O), JangDynasty\_112 (O), KingPhillip3\_112 (O), Krii\_116 (O), MadKillah\_117 (O), Mori\_114 (O), Murai\_114 (O), NiebruSaylor\_114 (O), Ryadel\_119 (O), SchoolBus\_115 (O), Schuy\_114 (O), Shida\_114 (O), Smooch\_112 (O), TelAviv\_111 (O), Vagabond\_113 (O), Vorrps\_114 (O), Winget\_114 (O), Wogge42\_110 (O), YoyoKar\_111 (O), YungJamal\_111 (O), Zakhe101\_110 (O), Zebo\_113 (O),

#### Start 25:

- Found in 41 of 42 ( 97.6% ) of genes in pham
- Manual Annotations of this start: 7 of 38
- Called 17.1% of time when present
- Phage (with cluster) where this start called: BENtherdunthat\_85 (DN1), BotCity\_87 (DN), Getalong\_88 (DN1), Kenna\_80 (DN1), Lutum\_86 (DN1), Phabuloso\_92 (DN1), Spooky\_87 (DN2),

#### Start 26:

- Found in 1 of 42 ( 2.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GAL1\_66 (singleton),

### Summary by clusters:

There are 5 clusters represented in this pham: DN, singleton, DN1, O, DN2,

Info for manual annotations of cluster DN:

- Start number 25 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 25 was manually annotated 5 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 25 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster O:

- Start number 17 was manually annotated 2 times for cluster O.

- Start number 22 was manually annotated 29 times for cluster O.

### **Gene Information:**

Gene: Alkhayr\_114 Start: 66256, Stop: 65741, Start Num: 22

Candidate Starts for Alkhayr\_114:

(Start: 22 @66256 has 29 MA's), (24, 66220), (Start: 25 @66211 has 7 MA's), (27, 66208), (28, 66202), (29, 66172), (30, 66145), (31, 66136), (34, 66028), (35, 65974), (38, 65851), (39, 65848), (40, 65830), (42, 65809), (46, 65767),

Gene: Ashwin\_110 Start: 65410, Stop: 64736, Start Num: 17

Candidate Starts for Ashwin\_110:

(Start: 17 @65410 has 2 MA's), (Start: 22 @65302 has 29 MA's), (24, 65266), (Start: 25 @65257 has 7 MA's), (27, 65254), (29, 65218), (30, 65191), (31, 65182), (32, 65077), (35, 64969), (38, 64846), (39, 64843), (40, 64825), (42, 64804), (46, 64762),

Gene: BENtherdunthat\_85 Start: 47138, Stop: 47569, Start Num: 25

Candidate Starts for BENtherdunthat\_85:

(Start: 25 @47138 has 7 MA's), (37, 47462),

Gene: Blessica\_114 Start: 66987, Stop: 66472, Start Num: 22

Candidate Starts for Blessica\_114:

(Start: 22 @66987 has 29 MA's), (24, 66951), (Start: 25 @66942 has 7 MA's), (27, 66939), (29, 66903), (30, 66876), (31, 66867), (34, 66759), (35, 66705), (36, 66615), (38, 66582), (39, 66579), (40, 66561), (42, 66540), (46, 66498),

Gene: Bora\_111 Start: 66940, Stop: 66425, Start Num: 22

Candidate Starts for Bora\_111:

(Start: 22 @66940 has 29 MA's), (24, 66904), (Start: 25 @66895 has 7 MA's), (27, 66892), (29, 66856), (30, 66829), (31, 66820), (35, 66658), (38, 66535), (39, 66532), (40, 66514), (42, 66493), (46, 66451),

Gene: BotCity\_87 Start: 48667, Stop: 49098, Start Num: 25

Candidate Starts for BotCity\_87:

(Start: 25 @48667 has 7 MA's), (37, 48991),

Gene: Catdawg\_115 Start: 67576, Stop: 67061, Start Num: 22

Candidate Starts for Catdawg\_115:

(Start: 22 @67576 has 29 MA's), (24, 67540), (Start: 25 @67531 has 7 MA's), (27, 67528), (28, 67522), (29, 67492), (30, 67465), (31, 67456), (34, 67348), (35, 67294), (38, 67171), (39, 67168), (40, 67150), (42, 67129), (46, 67087),

Gene: Corndog\_110 Start: 65213, Stop: 64647, Start Num: 22

Candidate Starts for Corndog\_110:

(1, 65786), (2, 65684), (4, 65621), (5, 65561), (6, 65549), (8, 65522), (12, 65393), (14, 65384), (15, 65330), (16, 65324), (18, 65297), (19, 65291), (Start: 22 @65213 has 29 MA's), (24, 65177), (Start: 25 @65168 has 7 MA's), (27, 65165), (29, 65129), (30, 65102), (31, 65093), (32, 64988), (35, 64880), (38, 64757), (39, 64754), (40, 64736), (42, 64715), (46, 64673),

Gene: Dylan\_108 Start: 65404, Stop: 64838, Start Num: 22

Candidate Starts for Dylan\_108:

(Start: 22 @65404 has 29 MA's), (24, 65368), (Start: 25 @65359 has 7 MA's), (27, 65356), (29, 65320), (30, 65293), (31, 65284), (32, 65179), (35, 65071), (38, 64948), (39, 64945), (40, 64927), (42, 64906), (46, 64864),

Gene: Familton\_116 Start: 67348, Stop: 66833, Start Num: 22

Candidate Starts for Familton\_116:

(Start: 22 @67348 has 29 MA's), (24, 67312), (Start: 25 @67303 has 7 MA's), (27, 67300), (29, 67264), (30, 67237), (31, 67228), (34, 67120), (35, 67066), (36, 66976), (38, 66943), (39, 66940), (40, 66922), (42, 66901), (46, 66859),

Gene: Firecracker\_114 Start: 66931, Stop: 66365, Start Num: 22

Candidate Starts for Firecracker\_114:

(3, 67366), (7, 67264), (9, 67201), (10, 67141), (11, 67129), (13, 67102), (Start: 22 @66931 has 29 MA's), (24, 66895), (Start: 25 @66886 has 7 MA's), (27, 66883), (29, 66847), (30, 66820), (31, 66811), (32, 66706), (35, 66598), (38, 66475), (39, 66472), (40, 66454), (42, 66433), (46, 66391),

Gene: FoulBall\_113 Start: 66539, Stop: 66024, Start Num: 22

Candidate Starts for FoulBall\_113:

(Start: 22 @66539 has 29 MA's), (24, 66503), (Start: 25 @66494 has 7 MA's), (27, 66491), (28, 66485), (29, 66455), (30, 66428), (31, 66419), (34, 66311), (35, 66257), (38, 66134), (39, 66131), (40, 66113), (42, 66092), (46, 66050),

Gene: GAL1\_66 Start: 42130, Stop: 42576, Start Num: 26

Candidate Starts for GAL1\_66:

(26, 42130), (43, 42520), (44, 42529), (47, 42568),

Gene: Getalong\_88 Start: 49593, Stop: 50024, Start Num: 25

Candidate Starts for Getalong\_88:

(Start: 25 @49593 has 7 MA's), (37, 49917),

Gene: Idergollasper\_118 Start: 68059, Stop: 67544, Start Num: 22

Candidate Starts for Idergollasper\_118:

(Start: 22 @68059 has 29 MA's), (24, 68023), (Start: 25 @68014 has 7 MA's), (27, 68011), (29, 67975), (30, 67948), (31, 67939), (34, 67831), (35, 67777), (36, 67687), (38, 67654), (39, 67651), (40, 67633), (42, 67612), (46, 67570),

Gene: Imara\_110 Start: 66342, Stop: 65827, Start Num: 22

Candidate Starts for Imara\_110:

(Start: 22 @66342 has 29 MA's), (24, 66306), (Start: 25 @66297 has 7 MA's), (27, 66294), (28, 66288), (29, 66258), (30, 66231), (31, 66222), (34, 66114), (35, 66060), (38, 65937), (39, 65934), (40, 65916), (42, 65895), (46, 65853),

Gene: JangDynasty\_112 Start: 66409, Stop: 65894, Start Num: 22

Candidate Starts for JangDynasty\_112:

(Start: 22 @66409 has 29 MA's), (24, 66373), (Start: 25 @66364 has 7 MA's), (27, 66361), (29, 66325), (30, 66298), (31, 66289), (34, 66181), (35, 66127), (36, 66037), (38, 66004), (39, 66001), (40, 65983), (42, 65962), (46, 65920),

Gene: Kenna\_80 Start: 46411, Stop: 46842, Start Num: 25

Candidate Starts for Kenna\_80:

(Start: 25 @46411 has 7 MA's), (37, 46735),

Gene: KingPhillip3\_112 Start: 66915, Stop: 66400, Start Num: 22

Candidate Starts for KingPhillip3\_112:

(Start: 22 @66915 has 29 MA's), (24, 66879), (Start: 25 @66870 has 7 MA's), (27, 66867), (29, 66831), (30, 66804), (31, 66795), (34, 66687), (35, 66633), (36, 66543), (38, 66510), (39, 66507), (40, 66489), (42, 66468), (46, 66426),

Gene: Krili\_116 Start: 67134, Stop: 66619, Start Num: 22

Candidate Starts for Krili\_116:

(Start: 22 @67134 has 29 MA's), (24, 67098), (Start: 25 @67089 has 7 MA's), (27, 67086), (29, 67050), (30, 67023), (31, 67014), (34, 66906), (35, 66852), (38, 66729), (39, 66726), (40, 66708), (42, 66687), (46, 66645),

Gene: Lutum\_86 Start: 47573, Stop: 48004, Start Num: 25

Candidate Starts for Lutum\_86:

(Start: 25 @47573 has 7 MA's), (37, 47897),

Gene: MadKillah\_117 Start: 66609, Stop: 66094, Start Num: 22

Candidate Starts for MadKillah\_117:

(Start: 22 @66609 has 29 MA's), (24, 66573), (Start: 25 @66564 has 7 MA's), (27, 66561), (28, 66555), (29, 66525), (30, 66498), (31, 66489), (34, 66381), (35, 66327), (38, 66204), (39, 66201), (40, 66183), (42, 66162), (46, 66120),

Gene: Mori\_114 Start: 67159, Stop: 66644, Start Num: 22

Candidate Starts for Mori\_114:

(Start: 22 @67159 has 29 MA's), (24, 67123), (Start: 25 @67114 has 7 MA's), (27, 67111), (29, 67075), (30, 67048), (31, 67039), (34, 66931), (35, 66877), (38, 66754), (39, 66751), (40, 66733), (42, 66712), (46, 66670),

Gene: Murai\_114 Start: 66977, Stop: 66462, Start Num: 22

Candidate Starts for Murai\_114:

(Start: 22 @66977 has 29 MA's), (24, 66941), (Start: 25 @66932 has 7 MA's), (27, 66929), (28, 66923), (29, 66893), (30, 66866), (31, 66857), (34, 66749), (35, 66695), (38, 66572), (39, 66569), (40, 66551), (42, 66530), (46, 66488),

Gene: NiebruSaylor\_114 Start: 66273, Stop: 65758, Start Num: 22

Candidate Starts for NiebruSaylor\_114:

(Start: 22 @66273 has 29 MA's), (24, 66237), (Start: 25 @66228 has 7 MA's), (27, 66225), (29, 66189), (30, 66162), (31, 66153), (34, 66045), (35, 65991), (36, 65901), (38, 65868), (39, 65865), (40, 65847), (42, 65826), (46, 65784),

Gene: Phabuloso\_92 Start: 49065, Stop: 49496, Start Num: 25

Candidate Starts for Phabuloso\_92:

(Start: 25 @49065 has 7 MA's), (37, 49389),

Gene: Ryadel\_119 Start: 68125, Stop: 67610, Start Num: 22

Candidate Starts for Ryadel\_119:

(Start: 22 @68125 has 29 MA's), (24, 68089), (Start: 25 @68080 has 7 MA's), (27, 68077), (29, 68041), (30, 68014), (31, 68005), (34, 67897), (35, 67843), (38, 67720), (39, 67717), (40, 67699), (42, 67678), (45, 67648), (46, 67636),

Gene: SchoolBus\_115 Start: 67224, Stop: 66709, Start Num: 22

Candidate Starts for SchoolBus\_115:

(Start: 22 @67224 has 29 MA's), (24, 67188), (Start: 25 @67179 has 7 MA's), (27, 67176), (29, 67140), (30, 67113), (31, 67104), (34, 66996), (35, 66942), (36, 66852), (38, 66819), (39, 66816), (40, 66798),

(42, 66777), (46, 66735),

Gene: Schuy\_114 Start: 66324, Stop: 65809, Start Num: 22

Candidate Starts for Schuy\_114:

(Start: 22 @66324 has 29 MA's), (24, 66288), (Start: 25 @66279 has 7 MA's), (27, 66276), (28, 66270), (29, 66240), (30, 66213), (31, 66204), (34, 66096), (35, 66042), (38, 65919), (39, 65916), (40, 65898), (42, 65877), (46, 65835),

Gene: Shida\_114 Start: 66885, Stop: 66370, Start Num: 22

Candidate Starts for Shida\_114:

(Start: 22 @66885 has 29 MA's), (24, 66849), (Start: 25 @66840 has 7 MA's), (27, 66837), (29, 66801), (30, 66774), (31, 66765), (34, 66657), (35, 66603), (36, 66513), (38, 66480), (39, 66477), (40, 66459), (42, 66438), (46, 66396),

Gene: Smooch\_112 Start: 66857, Stop: 66342, Start Num: 22

Candidate Starts for Smooch\_112:

(Start: 22 @66857 has 29 MA's), (24, 66821), (Start: 25 @66812 has 7 MA's), (27, 66809), (28, 66803), (29, 66773), (30, 66746), (31, 66737), (34, 66629), (35, 66575), (38, 66452), (39, 66449), (40, 66431), (42, 66410), (46, 66368),

Gene: Spooky\_87 Start: 48761, Stop: 49198, Start Num: 25

Candidate Starts for Spooky\_87:

(20, 48704), (21, 48713), (23, 48734), (Start: 25 @48761 has 7 MA's), (33, 48926), (37, 49085), (41, 49121), (43, 49142),

Gene: TelAviv\_111 Start: 66957, Stop: 66442, Start Num: 22

Candidate Starts for TelAviv\_111:

(Start: 22 @66957 has 29 MA's), (24, 66921), (Start: 25 @66912 has 7 MA's), (27, 66909), (29, 66873), (30, 66846), (31, 66837), (34, 66729), (35, 66675), (36, 66585), (38, 66552), (39, 66549), (40, 66531), (42, 66510), (46, 66468),

Gene: Vagabond\_113 Start: 66372, Stop: 65857, Start Num: 22

Candidate Starts for Vagabond\_113:

(Start: 22 @66372 has 29 MA's), (24, 66336), (Start: 25 @66327 has 7 MA's), (27, 66324), (28, 66318), (29, 66288), (30, 66261), (31, 66252), (34, 66144), (35, 66090), (38, 65967), (39, 65964), (40, 65946), (42, 65925), (46, 65883),

Gene: Vorrps\_114 Start: 67160, Stop: 66645, Start Num: 22

Candidate Starts for Vorrps\_114:

(Start: 22 @67160 has 29 MA's), (24, 67124), (Start: 25 @67115 has 7 MA's), (27, 67112), (29, 67076), (30, 67049), (31, 67040), (34, 66932), (35, 66878), (38, 66755), (39, 66752), (40, 66734), (42, 66713), (46, 66671),

Gene: Wildflower\_110 Start: 65042, Stop: 64368, Start Num: 17

Candidate Starts for Wildflower\_110:

(Start: 17 @65042 has 2 MA's), (Start: 22 @64934 has 29 MA's), (24, 64898), (Start: 25 @64889 has 7 MA's), (27, 64886), (29, 64850), (30, 64823), (31, 64814), (32, 64709), (35, 64601), (38, 64478), (39, 64475), (40, 64457), (42, 64436), (46, 64394),

Gene: Winget\_114 Start: 67009, Stop: 66494, Start Num: 22

Candidate Starts for Winget\_114:

(Start: 22 @67009 has 29 MA's), (24, 66973), (Start: 25 @66964 has 7 MA's), (27, 66961), (28, 66955), (29, 66925), (30, 66898), (31, 66889), (34, 66781), (35, 66727), (38, 66604), (39, 66601), (40, 66583),

(42, 66562), (46, 66520),

Gene: Wogge42\_110 Start: 66342, Stop: 65776, Start Num: 22

Candidate Starts for Wogge42\_110:

(Start: 22 @66342 has 29 MA's), (24, 66306), (Start: 25 @66297 has 7 MA's), (27, 66294), (29, 66258), (30, 66231), (31, 66222), (32, 66117), (35, 66009), (38, 65886), (39, 65883), (40, 65865), (42, 65844), (46, 65802),

Gene: YoyoKar\_111 Start: 66432, Stop: 65917, Start Num: 22

Candidate Starts for YoyoKar\_111:

(Start: 22 @66432 has 29 MA's), (24, 66396), (Start: 25 @66387 has 7 MA's), (27, 66384), (29, 66348), (30, 66321), (31, 66312), (34, 66204), (35, 66150), (38, 66027), (39, 66024), (40, 66006), (42, 65985), (46, 65943),

Gene: YungJamal\_111 Start: 65646, Stop: 65131, Start Num: 22

Candidate Starts for YungJamal\_111:

(Start: 22 @65646 has 29 MA's), (24, 65610), (Start: 25 @65601 has 7 MA's), (27, 65598), (28, 65592), (29, 65562), (30, 65535), (31, 65526), (34, 65418), (35, 65364), (38, 65241), (39, 65238), (40, 65220), (42, 65199), (46, 65157),

Gene: Zakhe101\_110 Start: 65243, Stop: 64728, Start Num: 22

Candidate Starts for Zakhe101\_110:

(Start: 22 @65243 has 29 MA's), (24, 65207), (Start: 25 @65198 has 7 MA's), (27, 65195), (29, 65159), (30, 65132), (31, 65123), (35, 64961), (38, 64838), (39, 64835), (40, 64817), (42, 64796), (46, 64754),

Gene: Zebo\_113 Start: 66792, Stop: 66226, Start Num: 22

Candidate Starts for Zebo\_113:

(Start: 22 @66792 has 29 MA's), (24, 66756), (Start: 25 @66747 has 7 MA's), (27, 66744), (29, 66708), (30, 66681), (31, 66672), (32, 66567), (35, 66459), (38, 66336), (39, 66333), (40, 66315), (42, 66294), (46, 66252),