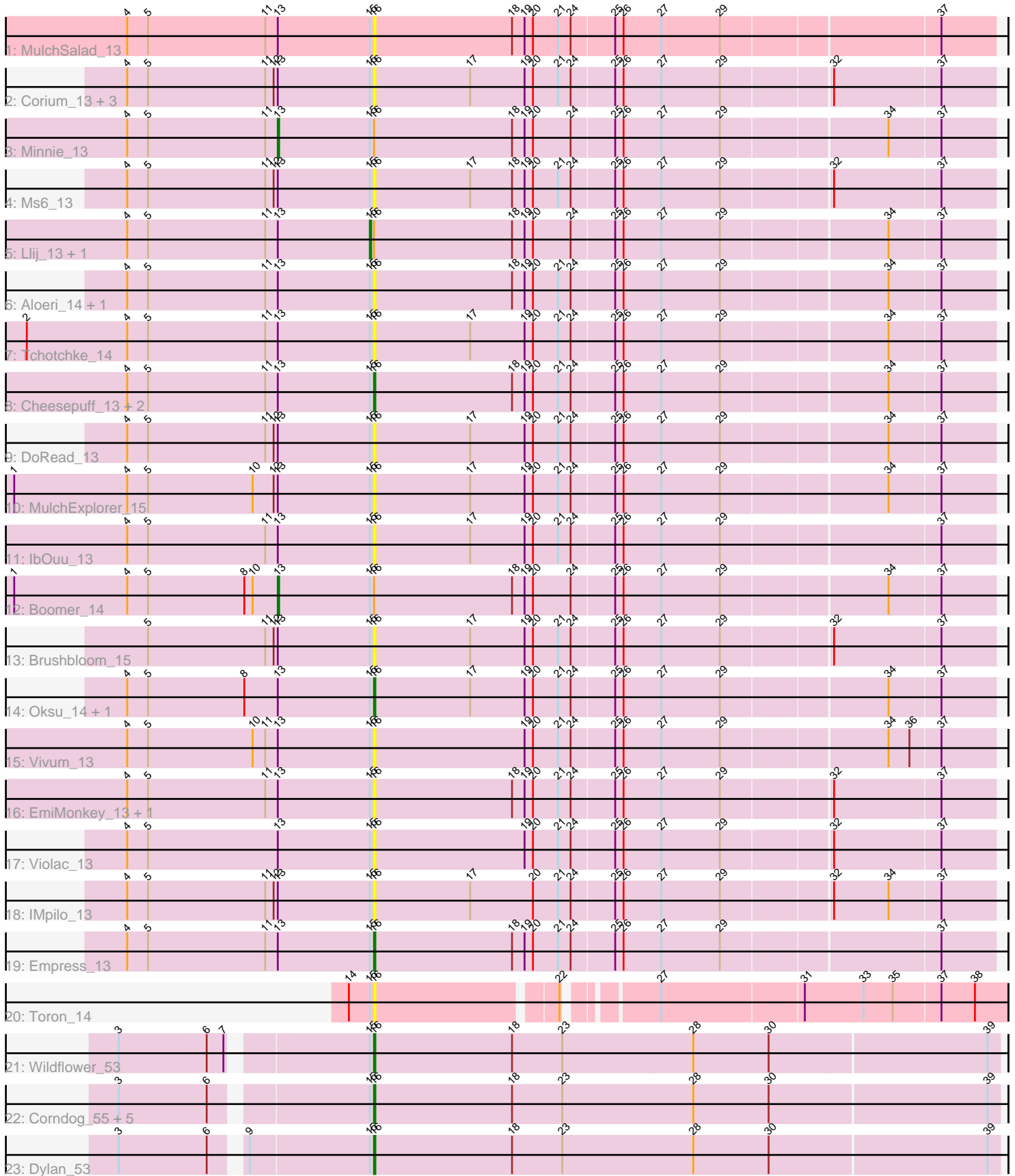


# Pham 219923



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 219923 Report

This analysis was run 03/28/25 on database version 593.

Pham number 219923 has 37 members, 22 are drafts.

Phages represented in each track:

- Track 1 : MulchSalad\_13
- Track 2 : Corium\_13, KingJulian\_13, Jant\_13, NewHope4\_13
- Track 3 : Minnie\_13
- Track 4 : Ms6\_13
- Track 5 : Lij\_13, PMC\_13
- Track 6 : Aloeri\_14, ChickenDinner\_14
- Track 7 : Tchotchke\_14
- Track 8 : Cheesepuff\_13, DaddyRickover\_13, RedBird\_13
- Track 9 : DoRead\_13
- Track 10 : MulchExplorer\_15
- Track 11 : IbOuu\_13
- Track 12 : Boomer\_14
- Track 13 : Brushbloom\_15
- Track 14 : Oksu\_14, AlpineSix\_13
- Track 15 : Vivum\_13
- Track 16 : EmiMonkey\_13, PhlipPhlop\_13
- Track 17 : Violac\_13
- Track 18 : IMpilo\_13
- Track 19 : Empress\_13
- Track 20 : Toron\_14
- Track 21 : Wildflower\_53
- Track 22 : Corndog\_55, Schuy\_54, Firecracker\_53, Ashwin\_54, FoulBall\_53, Idergollasper\_53
- Track 23 : Dylan\_53

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

The start number called the most often in the published annotations is 16, it was called in 11 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aloeri\_14, AlpineSix\_13, Ashwin\_54, Brushbloom\_15, Cheesepuff\_13, ChickenDinner\_14, Corium\_13, Corndog\_55, DaddyRickover\_13, DoRead\_13, Dylan\_53, EmiMonkey\_13, Empress\_13, Firecracker\_53, FoulBall\_53, IMpilo\_13,

IbOuu\_13, Idergollasper\_53, Jant\_13, KingJulian\_13, Ms6\_13, MulchExplorer\_15, MulchSalad\_13, NewHope4\_13, Oksu\_14, PhlipPhlop\_13, RedBird\_13, Schuy\_54, Tchotchke\_14, Toron\_14, Violac\_13, Vivum\_13, Wildflower\_53,

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

- Boomer\_14, Llij\_13, Minnie\_13, PMC\_13,

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

- 

### Summary by start number:

Start 13:

- Found in 28 of 37 ( 75.7% ) of genes in pham
- Manual Annotations of this start: 2 of 15
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Boomer\_14 (F1), Minnie\_13 (F1),

Start 15:

- Found in 37 of 37 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 2 of 15
- Called 5.4% of time when present
- Phage (with cluster) where this start called: Llij\_13 (F1), PMC\_13 (F1),

Start 16:

- Found in 37 of 37 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 11 of 15
- Called 89.2% of time when present
- Phage (with cluster) where this start called: Aloeri\_14 (F1), AlpineSix\_13 (F1), Ashwin\_54 (O), Brushbloom\_15 (F1), Cheesepuff\_13 (F1), ChickenDinner\_14 (F1), Corium\_13 (F1), Corndog\_55 (O), DaddyRickover\_13 (F1), DoRead\_13 (F1), Dylan\_53 (O), EmiMonkey\_13 (F1), Empress\_13 (F1), Firecracker\_53 (O), FoulBall\_53 (O), IMpilo\_13 (F1), IbOuu\_13 (F1), Idergollasper\_53 (O), Jant\_13 (F1), KingJulian\_13 (F1), Ms6\_13 (F1), MulchExplorer\_15 (F1), MulchSalad\_13 (F1), NewHope4\_13 (F1), Oksu\_14 (F1), PhlipPhlop\_13 (F1), RedBird\_13 (F1), Schuy\_54 (O), Tchotchke\_14 (F1), Toron\_14 (F6), Violac\_13 (F1), Vivum\_13 (F1), Wildflower\_53 (O),

### Summary by clusters:

There are 4 clusters represented in this pham: F1, F6, O, F,

Info for manual annotations of cluster F1:

- Start number 13 was manually annotated 2 times for cluster F1.
- Start number 15 was manually annotated 2 times for cluster F1.
- Start number 16 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster O:

- Start number 16 was manually annotated 8 times for cluster O.

**Gene Information:**

Gene: Aloeri\_14 Start: 8901, Stop: 9335, Start Num: 16

Candidate Starts for Aloeri\_14:

(4, 8724), (5, 8739), (11, 8823), (Start: 13 @8832 has 2 MA's), (Start: 15 @8898 has 2 MA's), (Start: 16 @8901 has 11 MA's), (18, 9000), (19, 9009), (20, 9015), (21, 9033), (24, 9042), (25, 9072), (26, 9078), (27, 9105), (29, 9147), (34, 9261), (37, 9297),

Gene: AlpineSix\_13 Start: 9037, Stop: 9471, Start Num: 16

Candidate Starts for AlpineSix\_13:

(4, 8860), (5, 8875), (8, 8944), (Start: 13 @8968 has 2 MA's), (Start: 15 @9034 has 2 MA's), (Start: 16 @9037 has 11 MA's), (17, 9106), (19, 9145), (20, 9151), (21, 9169), (24, 9178), (25, 9208), (26, 9214), (27, 9241), (29, 9283), (34, 9397), (37, 9433),

Gene: Ashwin\_54 Start: 26165, Stop: 26608, Start Num: 16

Candidate Starts for Ashwin\_54:

(3, 25997), (6, 26060), (Start: 15 @26162 has 2 MA's), (Start: 16 @26165 has 11 MA's), (18, 26264), (23, 26300), (28, 26393), (30, 26447), (39, 26600),

Gene: Boomer\_14 Start: 8822, Stop: 9325, Start Num: 13

Candidate Starts for Boomer\_14:

(1, 8633), (4, 8714), (5, 8729), (8, 8798), (10, 8804), (Start: 13 @8822 has 2 MA's), (Start: 15 @8888 has 2 MA's), (Start: 16 @8891 has 11 MA's), (18, 8990), (19, 8999), (20, 9005), (24, 9032), (25, 9062), (26, 9068), (27, 9095), (29, 9137), (34, 9251), (37, 9287),

Gene: Brushbloom\_15 Start: 8911, Stop: 9345, Start Num: 16

Candidate Starts for Brushbloom\_15:

(5, 8749), (11, 8833), (12, 8839), (Start: 13 @8842 has 2 MA's), (Start: 15 @8908 has 2 MA's), (Start: 16 @8911 has 11 MA's), (17, 8980), (19, 9019), (20, 9025), (21, 9043), (24, 9052), (25, 9082), (26, 9088), (27, 9115), (29, 9157), (32, 9232), (37, 9307),

Gene: Cheesepuff\_13 Start: 9050, Stop: 9484, Start Num: 16

Candidate Starts for Cheesepuff\_13:

(4, 8873), (5, 8888), (11, 8972), (Start: 13 @8981 has 2 MA's), (Start: 15 @9047 has 2 MA's), (Start: 16 @9050 has 11 MA's), (18, 9149), (19, 9158), (20, 9164), (21, 9182), (24, 9191), (25, 9221), (26, 9227), (27, 9254), (29, 9296), (34, 9410), (37, 9446),

Gene: ChickenDinner\_14 Start: 8901, Stop: 9335, Start Num: 16

Candidate Starts for ChickenDinner\_14:

(4, 8724), (5, 8739), (11, 8823), (Start: 13 @8832 has 2 MA's), (Start: 15 @8898 has 2 MA's), (Start: 16 @8901 has 11 MA's), (18, 9000), (19, 9009), (20, 9015), (21, 9033), (24, 9042), (25, 9072), (26, 9078), (27, 9105), (29, 9147), (34, 9261), (37, 9297),

Gene: Corium\_13 Start: 9080, Stop: 9514, Start Num: 16

Candidate Starts for Corium\_13:

(4, 8903), (5, 8918), (11, 9002), (12, 9008), (Start: 13 @9011 has 2 MA's), (Start: 15 @9077 has 2 MA's), (Start: 16 @9080 has 11 MA's), (17, 9149), (19, 9188), (20, 9194), (21, 9212), (24, 9221), (25, 9251), (26, 9257), (27, 9284), (29, 9326), (32, 9401), (37, 9476),

Gene: Corndog\_55 Start: 26715, Stop: 27158, Start Num: 16

Candidate Starts for Corndog\_55:

(3, 26547), (6, 26610), (Start: 15 @26712 has 2 MA's), (Start: 16 @26715 has 11 MA's), (18, 26814), (23, 26850), (28, 26943), (30, 26997), (39, 27150),

Gene: DaddyRickover\_13 Start: 9034, Stop: 9468, Start Num: 16

Candidate Starts for DaddyRickover\_13:

(4, 8857), (5, 8872), (11, 8956), (Start: 13 @8965 has 2 MA's), (Start: 15 @9031 has 2 MA's), (Start: 16 @9034 has 11 MA's), (18, 9133), (19, 9142), (20, 9148), (21, 9166), (24, 9175), (25, 9205), (26, 9211), (27, 9238), (29, 9280), (34, 9394), (37, 9430),

Gene: DoRead\_13 Start: 9036, Stop: 9470, Start Num: 16

Candidate Starts for DoRead\_13:

(4, 8859), (5, 8874), (11, 8958), (12, 8964), (Start: 13 @8967 has 2 MA's), (Start: 15 @9033 has 2 MA's), (Start: 16 @9036 has 11 MA's), (17, 9105), (19, 9144), (20, 9150), (21, 9168), (24, 9177), (25, 9207), (26, 9213), (27, 9240), (29, 9282), (34, 9396), (37, 9432),

Gene: Dylan\_53 Start: 26379, Stop: 26822, Start Num: 16

Candidate Starts for Dylan\_53:

(3, 26211), (6, 26274), (9, 26292), (Start: 15 @26376 has 2 MA's), (Start: 16 @26379 has 11 MA's), (18, 26478), (23, 26514), (28, 26607), (30, 26661), (39, 26814),

Gene: EmiMonkey\_13 Start: 9051, Stop: 9485, Start Num: 16

Candidate Starts for EmiMonkey\_13:

(4, 8874), (5, 8889), (11, 8973), (Start: 13 @8982 has 2 MA's), (Start: 15 @9048 has 2 MA's), (Start: 16 @9051 has 11 MA's), (18, 9150), (19, 9159), (20, 9165), (21, 9183), (24, 9192), (25, 9222), (26, 9228), (27, 9255), (29, 9297), (32, 9372), (37, 9447),

Gene: Empress\_13 Start: 9055, Stop: 9489, Start Num: 16

Candidate Starts for Empress\_13:

(4, 8878), (5, 8893), (11, 8977), (Start: 13 @8986 has 2 MA's), (Start: 15 @9052 has 2 MA's), (Start: 16 @9055 has 11 MA's), (18, 9154), (19, 9163), (20, 9169), (21, 9187), (24, 9196), (25, 9226), (26, 9232), (27, 9259), (29, 9301), (37, 9451),

Gene: Firecracker\_53 Start: 25868, Stop: 26311, Start Num: 16

Candidate Starts for Firecracker\_53:

(3, 25700), (6, 25763), (Start: 15 @25865 has 2 MA's), (Start: 16 @25868 has 11 MA's), (18, 25967), (23, 26003), (28, 26096), (30, 26150), (39, 26303),

Gene: FoulBall\_53 Start: 26255, Stop: 26698, Start Num: 16

Candidate Starts for FoulBall\_53:

(3, 26087), (6, 26150), (Start: 15 @26252 has 2 MA's), (Start: 16 @26255 has 11 MA's), (18, 26354), (23, 26390), (28, 26483), (30, 26537), (39, 26690),

Gene: IMpilo\_13 Start: 9064, Stop: 9498, Start Num: 16

Candidate Starts for IMpilo\_13:

(4, 8887), (5, 8902), (11, 8986), (12, 8992), (Start: 13 @8995 has 2 MA's), (Start: 15 @9061 has 2 MA's), (Start: 16 @9064 has 11 MA's), (17, 9133), (20, 9178), (21, 9196), (24, 9205), (25, 9235), (26, 9241), (27, 9268), (29, 9310), (32, 9385), (34, 9424), (37, 9460),

Gene: lbOuu\_13 Start: 9033, Stop: 9467, Start Num: 16

Candidate Starts for lbOuu\_13:

(4, 8856), (5, 8871), (11, 8955), (Start: 13 @8964 has 2 MA's), (Start: 15 @9030 has 2 MA's), (Start: 16 @9033 has 11 MA's), (17, 9102), (19, 9141), (20, 9147), (21, 9165), (24, 9174), (25, 9204), (26, 9210), (27, 9237), (29, 9279), (37, 9429),

Gene: ldergollasper\_53 Start: 26255, Stop: 26698, Start Num: 16

Candidate Starts for Idergollasper\_53:

(3, 26087), (6, 26150), (Start: 15 @26252 has 2 MA's), (Start: 16 @26255 has 11 MA's), (18, 26354), (23, 26390), (28, 26483), (30, 26537), (39, 26690),

Gene: Jant\_13 Start: 9081, Stop: 9515, Start Num: 16

Candidate Starts for Jant\_13:

(4, 8904), (5, 8919), (11, 9003), (12, 9009), (Start: 13 @9012 has 2 MA's), (Start: 15 @9078 has 2 MA's), (Start: 16 @9081 has 11 MA's), (17, 9150), (19, 9189), (20, 9195), (21, 9213), (24, 9222), (25, 9252), (26, 9258), (27, 9285), (29, 9327), (32, 9402), (37, 9477),

Gene: KingJulian\_13 Start: 9080, Stop: 9514, Start Num: 16

Candidate Starts for KingJulian\_13:

(4, 8903), (5, 8918), (11, 9002), (12, 9008), (Start: 13 @9011 has 2 MA's), (Start: 15 @9077 has 2 MA's), (Start: 16 @9080 has 11 MA's), (17, 9149), (19, 9188), (20, 9194), (21, 9212), (24, 9221), (25, 9251), (26, 9257), (27, 9284), (29, 9326), (32, 9401), (37, 9476),

Gene: Llij\_13 Start: 9048, Stop: 9485, Start Num: 15

Candidate Starts for Llij\_13:

(4, 8874), (5, 8889), (11, 8973), (Start: 13 @8982 has 2 MA's), (Start: 15 @9048 has 2 MA's), (Start: 16 @9051 has 11 MA's), (18, 9150), (19, 9159), (20, 9165), (24, 9192), (25, 9222), (26, 9228), (27, 9255), (29, 9297), (34, 9411), (37, 9447),

Gene: Minnie\_13 Start: 8982, Stop: 9485, Start Num: 13

Candidate Starts for Minnie\_13:

(4, 8874), (5, 8889), (11, 8973), (Start: 13 @8982 has 2 MA's), (Start: 15 @9048 has 2 MA's), (Start: 16 @9051 has 11 MA's), (18, 9150), (19, 9159), (20, 9165), (24, 9192), (25, 9222), (26, 9228), (27, 9255), (29, 9297), (34, 9411), (37, 9447),

Gene: Ms6\_13 Start: 9079, Stop: 9513, Start Num: 16

Candidate Starts for Ms6\_13:

(4, 8902), (5, 8917), (11, 9001), (12, 9007), (Start: 13 @9010 has 2 MA's), (Start: 15 @9076 has 2 MA's), (Start: 16 @9079 has 11 MA's), (17, 9148), (18, 9178), (19, 9187), (20, 9193), (21, 9211), (24, 9220), (25, 9250), (26, 9256), (27, 9283), (29, 9325), (32, 9400), (37, 9475),

Gene: MulchExplorer\_15 Start: 8893, Stop: 9327, Start Num: 16

Candidate Starts for MulchExplorer\_15:

(1, 8635), (4, 8716), (5, 8731), (10, 8806), (12, 8821), (Start: 13 @8824 has 2 MA's), (Start: 15 @8890 has 2 MA's), (Start: 16 @8893 has 11 MA's), (17, 8962), (19, 9001), (20, 9007), (21, 9025), (24, 9034), (25, 9064), (26, 9070), (27, 9097), (29, 9139), (34, 9253), (37, 9289),

Gene: MulchSalad\_13 Start: 9051, Stop: 9485, Start Num: 16

Candidate Starts for MulchSalad\_13:

(4, 8874), (5, 8889), (11, 8973), (Start: 13 @8982 has 2 MA's), (Start: 15 @9048 has 2 MA's), (Start: 16 @9051 has 11 MA's), (18, 9150), (19, 9159), (20, 9165), (21, 9183), (24, 9192), (25, 9222), (26, 9228), (27, 9255), (29, 9297), (37, 9447),

Gene: NewHope4\_13 Start: 9054, Stop: 9488, Start Num: 16

Candidate Starts for NewHope4\_13:

(4, 8877), (5, 8892), (11, 8976), (12, 8982), (Start: 13 @8985 has 2 MA's), (Start: 15 @9051 has 2 MA's), (Start: 16 @9054 has 11 MA's), (17, 9123), (19, 9162), (20, 9168), (21, 9186), (24, 9195), (25, 9225), (26, 9231), (27, 9258), (29, 9300), (32, 9375), (37, 9450),

Gene: Oksu\_14 Start: 8900, Stop: 9334, Start Num: 16

Candidate Starts for Oksu\_14:

(4, 8723), (5, 8738), (8, 8807), (Start: 13 @8831 has 2 MA's), (Start: 15 @8897 has 2 MA's), (Start: 16 @8900 has 11 MA's), (17, 8969), (19, 9008), (20, 9014), (21, 9032), (24, 9041), (25, 9071), (26, 9077), (27, 9104), (29, 9146), (34, 9260), (37, 9296),

Gene: PMC\_13 Start: 9048, Stop: 9485, Start Num: 15

Candidate Starts for PMC\_13:

(4, 8874), (5, 8889), (11, 8973), (Start: 13 @8982 has 2 MA's), (Start: 15 @9048 has 2 MA's), (Start: 16 @9051 has 11 MA's), (18, 9150), (19, 9159), (20, 9165), (24, 9192), (25, 9222), (26, 9228), (27, 9255), (29, 9297), (34, 9411), (37, 9447),

Gene: PhlipPhlop\_13 Start: 9051, Stop: 9485, Start Num: 16

Candidate Starts for PhlipPhlop\_13:

(4, 8874), (5, 8889), (11, 8973), (Start: 13 @8982 has 2 MA's), (Start: 15 @9048 has 2 MA's), (Start: 16 @9051 has 11 MA's), (18, 9150), (19, 9159), (20, 9165), (21, 9183), (24, 9192), (25, 9222), (26, 9228), (27, 9255), (29, 9297), (32, 9372), (37, 9447),

Gene: RedBird\_13 Start: 9034, Stop: 9468, Start Num: 16

Candidate Starts for RedBird\_13:

(4, 8857), (5, 8872), (11, 8956), (Start: 13 @8965 has 2 MA's), (Start: 15 @9031 has 2 MA's), (Start: 16 @9034 has 11 MA's), (18, 9133), (19, 9142), (20, 9148), (21, 9166), (24, 9175), (25, 9205), (26, 9211), (27, 9238), (29, 9280), (34, 9394), (37, 9430),

Gene: Schuy\_54 Start: 26191, Stop: 26634, Start Num: 16

Candidate Starts for Schuy\_54:

(3, 26023), (6, 26086), (Start: 15 @26188 has 2 MA's), (Start: 16 @26191 has 11 MA's), (18, 26290), (23, 26326), (28, 26419), (30, 26473), (39, 26626),

Gene: Tchotchke\_14 Start: 8886, Stop: 9320, Start Num: 16

Candidate Starts for Tchotchke\_14:

(2, 8637), (4, 8709), (5, 8724), (11, 8808), (Start: 13 @8817 has 2 MA's), (Start: 15 @8883 has 2 MA's), (Start: 16 @8886 has 11 MA's), (17, 8955), (19, 8994), (20, 9000), (21, 9018), (24, 9027), (25, 9057), (26, 9063), (27, 9090), (29, 9132), (34, 9246), (37, 9282),

Gene: Toron\_14 Start: 9495, Stop: 9914, Start Num: 16

Candidate Starts for Toron\_14:

(14, 9477), (Start: 15 @9492 has 2 MA's), (Start: 16 @9495 has 11 MA's), (22, 9618), (27, 9672), (31, 9771), (33, 9813), (35, 9834), (37, 9867), (38, 9891),

Gene: Violac\_13 Start: 9041, Stop: 9475, Start Num: 16

Candidate Starts for Violac\_13:

(4, 8864), (5, 8879), (Start: 13 @8972 has 2 MA's), (Start: 15 @9038 has 2 MA's), (Start: 16 @9041 has 11 MA's), (19, 9149), (20, 9155), (21, 9173), (24, 9182), (25, 9212), (26, 9218), (27, 9245), (29, 9287), (32, 9362), (37, 9437),

Gene: Vivum\_13 Start: 9041, Stop: 9475, Start Num: 16

Candidate Starts for Vivum\_13:

(4, 8864), (5, 8879), (10, 8954), (11, 8963), (Start: 13 @8972 has 2 MA's), (Start: 15 @9038 has 2 MA's), (Start: 16 @9041 has 11 MA's), (19, 9149), (20, 9155), (21, 9173), (24, 9182), (25, 9212), (26, 9218), (27, 9245), (29, 9287), (34, 9401), (36, 9416), (37, 9437),

Gene: Wildflower\_53 Start: 25830, Stop: 26273, Start Num: 16

Candidate Starts for Wildflower\_53:

(3, 25662), (6, 25725), (7, 25737), (Start: 15 @25827 has 2 MA's), (Start: 16 @25830 has 11 MA's),  
(18, 25929), (23, 25965), (28, 26058), (30, 26112), (39, 26265),