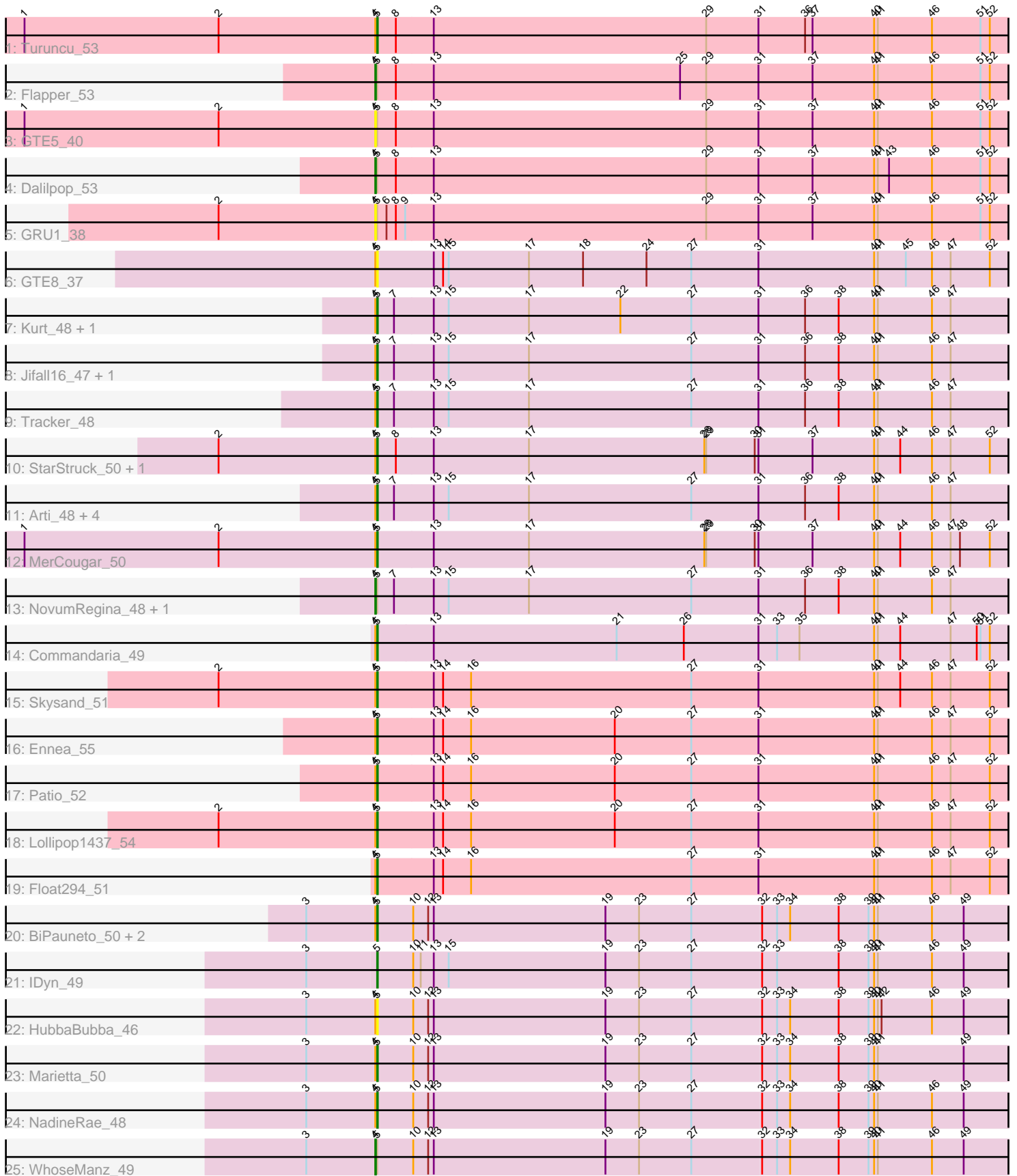


Pham 195706



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 195706 Report

This analysis was run 12/09/24 on database version 580.

Pham number 195706 has 35 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Turuncu\_53
- Track 2 : Flapper\_53
- Track 3 : GTE5\_40
- Track 4 : Dalilpop\_53
- Track 5 : GRU1\_38
- Track 6 : GTE8\_37
- Track 7 : Kurt\_48, Emianna\_48
- Track 8 : Jifall16\_47, Phomeo\_47
- Track 9 : Tracker\_48
- Track 10 : StarStruck\_50, Outis\_50
- Track 11 : Arti\_48, Foxboro\_49, NatB6\_48, KidneyBean\_48, Wheezy\_48
- Track 12 : MerCougar\_50
- Track 13 : NovumRegina\_48, GrootJr\_50
- Track 14 : Commandaria\_49
- Track 15 : Skysand\_51
- Track 16 : Ennea\_55
- Track 17 : Patio\_52
- Track 18 : Lollipop1437\_54
- Track 19 : Float294\_51
- Track 20 : BiPauneto\_50, Sukkupi\_49, Yndexa\_49
- Track 21 : IDyn\_49
- Track 22 : HubbaBubba\_46
- Track 23 : Marietta\_50
- Track 24 : NadineRae\_48
- Track 25 : WhoseManz\_49

### ***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 25 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti\_48, BiPauneto\_50, Commandaria\_49, Emianna\_48, Ennea\_55, Float294\_51, Foxboro\_49, GTE8\_37, HubbaBubba\_46, IDyn\_49, Jifall16\_47, KidneyBean\_48,

Kurt\_48, Lollipop1437\_54, Marietta\_50, MerCougar\_50, NadineRae\_48, NatB6\_48, Outis\_50, Patio\_52, Phomeo\_47, Skysand\_51, StarStruck\_50, Sukkupi\_49, Tracker\_48, Turuncu\_53, Wheezy\_48, Yndexa\_49,

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

- Dalilpop\_53, Flapper\_53, GRU1\_38, GTE5\_40, GrootJr\_50, NovumRegina\_48, WhoseManz\_49,

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

- 

### **Summary by start number:**

Start 4:

- Found in 34 of 35 ( 97.1% ) of genes in pham
- Manual Annotations of this start: 5 of 30
- Called 20.6% of time when present
- Phage (with cluster) where this start called: Dalilpop\_53 (CR1), Flapper\_53 (CR1), GRU1\_38 (CR1), GTE5\_40 (CR1), GrootJr\_50 (CR2), NovumRegina\_48 (CR2), WhoseManz\_49 (CR4),

Start 5:

- Found in 35 of 35 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 25 of 30
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Arti\_48 (CR2), BiPauneto\_50 (CR4), Commandaria\_49 (CR2), Emianna\_48 (CR2), Ennea\_55 (CR3), Float294\_51 (CR3), Foxboro\_49 (CR2), GTE8\_37 (CR2), HubbaBubba\_46 (CR4), IDyn\_49 (CR4), Jifall16\_47 (CR2), KidneyBean\_48 (CR2), Kurt\_48 (CR2), Lollipop1437\_54 (CR3), Marietta\_50 (CR4), MerCougar\_50 (CR2), NadineRae\_48 (CR4), NatB6\_48 (CR2), Outis\_50 (CR2), Patio\_52 (CR3), Phomeo\_47 (CR2), Skysand\_51 (CR3), StarStruck\_50 (CR2), Sukkupi\_49 (CR4), Tracker\_48 (CR2), Turuncu\_53 (CR1), Wheezy\_48 (CR2), Yndexa\_49 (CR4),

### **Summary by clusters:**

There are 4 clusters represented in this pham: CR2, CR3, CR1, CR4,

Info for manual annotations of cluster CR1:

- Start number 4 was manually annotated 2 times for cluster CR1.
- Start number 5 was manually annotated 1 time for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 4 was manually annotated 2 times for cluster CR2.
- Start number 5 was manually annotated 13 times for cluster CR2.

Info for manual annotations of cluster CR3:

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

Info for manual annotations of cluster CR4:

- Start number 4 was manually annotated 1 time for cluster CR4.
- Start number 5 was manually annotated 6 times for cluster CR4.

**Gene Information:**

Gene: Arti\_48 Start: 37353, Stop: 38375, Start Num: 5

Candidate Starts for Arti\_48:

(Start: 4 @37350 has 5 MA's), (Start: 5 @37353 has 25 MA's), (7, 37380), (13, 37443), (15, 37467), (17, 37596), (27, 37857), (31, 37965), (36, 38040), (38, 38094), (40, 38151), (41, 38157), (46, 38244), (47, 38274),

Gene: BiPauneto\_50 Start: 36862, Stop: 37881, Start Num: 5

Candidate Starts for BiPauneto\_50:

(3, 36748), (Start: 4 @36859 has 5 MA's), (Start: 5 @36862 has 25 MA's), (10, 36919), (12, 36943), (13, 36952), (19, 37228), (23, 37282), (27, 37366), (32, 37477), (33, 37501), (34, 37522), (38, 37600), (39, 37648), (40, 37657), (41, 37663), (46, 37750), (49, 37801),

Gene: Commandaria\_49 Start: 38469, Stop: 39491, Start Num: 5

Candidate Starts for Commandaria\_49:

(Start: 4 @38466 has 5 MA's), (Start: 5 @38469 has 25 MA's), (13, 38559), (21, 38853), (26, 38961), (31, 39081), (33, 39111), (35, 39147), (40, 39267), (41, 39273), (44, 39309), (47, 39390), (50, 39432), (51, 39438), (52, 39453),

Gene: Dalilpop\_53 Start: 39623, Stop: 40648, Start Num: 4

Candidate Starts for Dalilpop\_53:

(Start: 4 @39623 has 5 MA's), (Start: 5 @39626 has 25 MA's), (8, 39656), (13, 39716), (29, 40154), (31, 40238), (37, 40325), (40, 40424), (41, 40430), (43, 40448), (46, 40517), (51, 40595), (52, 40610),

Gene: Emianna\_48 Start: 38345, Stop: 39367, Start Num: 5

Candidate Starts for Emianna\_48:

(Start: 4 @38342 has 5 MA's), (Start: 5 @38345 has 25 MA's), (7, 38372), (13, 38435), (15, 38459), (17, 38588), (22, 38735), (27, 38849), (31, 38957), (36, 39032), (38, 39086), (40, 39143), (41, 39149), (46, 39236), (47, 39266),

Gene: Ennea\_55 Start: 39348, Stop: 40370, Start Num: 5

Candidate Starts for Ennea\_55:

(Start: 4 @39345 has 5 MA's), (Start: 5 @39348 has 25 MA's), (13, 39438), (14, 39453), (16, 39498), (20, 39729), (27, 39852), (31, 39960), (40, 40146), (41, 40152), (46, 40239), (47, 40269), (52, 40332),

Gene: Flapper\_53 Start: 39054, Stop: 40079, Start Num: 4

Candidate Starts for Flapper\_53:

(Start: 4 @39054 has 5 MA's), (Start: 5 @39057 has 25 MA's), (8, 39087), (13, 39147), (25, 39543), (29, 39585), (31, 39669), (37, 39756), (40, 39855), (41, 39861), (46, 39948), (51, 40026), (52, 40041),

Gene: Float294\_51 Start: 38790, Stop: 39812, Start Num: 5

Candidate Starts for Float294\_51:

(Start: 4 @38787 has 5 MA's), (Start: 5 @38790 has 25 MA's), (13, 38880), (14, 38895), (16, 38940), (27, 39294), (31, 39402), (40, 39588), (41, 39594), (46, 39681), (47, 39711), (52, 39774),

Gene: Foxboro\_49 Start: 38851, Stop: 39873, Start Num: 5

Candidate Starts for Foxboro\_49:

(Start: 4 @38848 has 5 MA's), (Start: 5 @38851 has 25 MA's), (7, 38878), (13, 38941), (15, 38965), (17, 39094), (27, 39355), (31, 39463), (36, 39538), (38, 39592), (40, 39649), (41, 39655), (46, 39742), (47, 39772),

Gene: GRU1\_38 Start: 30601, Stop: 31626, Start Num: 4

Candidate Starts for GRU1\_38:

(2, 30349), (Start: 4 @30601 has 5 MA's), (Start: 5 @30604 has 25 MA's), (6, 30619), (8, 30634), (9, 30649), (13, 30694), (29, 31132), (31, 31216), (37, 31303), (40, 31402), (41, 31408), (46, 31495), (51, 31573), (52, 31588),

Gene: GTE5\_40 Start: 31911, Stop: 32936, Start Num: 4

Candidate Starts for GTE5\_40:

(1, 31347), (2, 31659), (Start: 4 @31911 has 5 MA's), (Start: 5 @31914 has 25 MA's), (8, 31944), (13, 32004), (29, 32442), (31, 32526), (37, 32613), (40, 32712), (41, 32718), (46, 32805), (51, 32883), (52, 32898),

Gene: GTE8\_37 Start: 31603, Stop: 32625, Start Num: 5

Candidate Starts for GTE8\_37:

(Start: 4 @31600 has 5 MA's), (Start: 5 @31603 has 25 MA's), (13, 31693), (14, 31708), (15, 31717), (17, 31846), (18, 31933), (24, 32035), (27, 32107), (31, 32215), (40, 32401), (41, 32407), (45, 32452), (46, 32494), (47, 32524), (52, 32587),

Gene: GrootJr\_50 Start: 37724, Stop: 38749, Start Num: 4

Candidate Starts for GrootJr\_50:

(Start: 4 @37724 has 5 MA's), (Start: 5 @37727 has 25 MA's), (7, 37754), (13, 37817), (15, 37841), (17, 37970), (27, 38231), (31, 38339), (36, 38414), (38, 38468), (40, 38525), (41, 38531), (46, 38618), (47, 38648),

Gene: HubbaBubba\_46 Start: 33880, Stop: 34899, Start Num: 5

Candidate Starts for HubbaBubba\_46:

(3, 33766), (Start: 4 @33877 has 5 MA's), (Start: 5 @33880 has 25 MA's), (10, 33937), (12, 33961), (13, 33970), (19, 34246), (23, 34300), (27, 34384), (32, 34495), (33, 34519), (34, 34540), (38, 34618), (39, 34666), (40, 34675), (41, 34681), (42, 34687), (46, 34768), (49, 34819),

Gene: IDyn\_49 Start: 35306, Stop: 36325, Start Num: 5

Candidate Starts for IDyn\_49:

(3, 35195), (Start: 5 @35306 has 25 MA's), (10, 35363), (11, 35375), (13, 35396), (15, 35420), (19, 35672), (23, 35726), (27, 35810), (32, 35921), (33, 35945), (38, 36044), (39, 36092), (40, 36101), (41, 36107), (46, 36194), (49, 36245),

Gene: Jifall16\_47 Start: 37999, Stop: 39021, Start Num: 5

Candidate Starts for Jifall16\_47:

(Start: 4 @37996 has 5 MA's), (Start: 5 @37999 has 25 MA's), (7, 38026), (13, 38089), (15, 38113), (17, 38242), (27, 38503), (31, 38611), (36, 38686), (38, 38740), (40, 38797), (41, 38803), (46, 38890), (47, 38920),

Gene: KidneyBean\_48 Start: 38123, Stop: 39145, Start Num: 5

Candidate Starts for KidneyBean\_48:

(Start: 4 @38120 has 5 MA's), (Start: 5 @38123 has 25 MA's), (7, 38150), (13, 38213), (15, 38237), (17, 38366), (27, 38627), (31, 38735), (36, 38810), (38, 38864), (40, 38921), (41, 38927), (46, 39014), (47, 39044),

Gene: Kurt\_48 Start: 38360, Stop: 39382, Start Num: 5

Candidate Starts for Kurt\_48:

(Start: 4 @38357 has 5 MA's), (Start: 5 @38360 has 25 MA's), (7, 38387), (13, 38450), (15, 38474), (17, 38603), (22, 38750), (27, 38864), (31, 38972), (36, 39047), (38, 39101), (40, 39158), (41, 39164),

(46, 39251), (47, 39281),

Gene: Lollipop1437\_54 Start: 39336, Stop: 40358, Start Num: 5

Candidate Starts for Lollipop1437\_54:

(2, 39081), (Start: 4 @39333 has 5 MA's), (Start: 5 @39336 has 25 MA's), (13, 39426), (14, 39441), (16, 39486), (20, 39717), (27, 39840), (31, 39948), (40, 40134), (41, 40140), (46, 40227), (47, 40257), (52, 40320),

Gene: Marietta\_50 Start: 35200, Stop: 36219, Start Num: 5

Candidate Starts for Marietta\_50:

(3, 35086), (Start: 4 @35197 has 5 MA's), (Start: 5 @35200 has 25 MA's), (10, 35257), (12, 35281), (13, 35290), (19, 35566), (23, 35620), (27, 35704), (32, 35815), (33, 35839), (34, 35860), (38, 35938), (39, 35986), (40, 35995), (41, 36001), (49, 36139),

Gene: MerCougar\_50 Start: 38623, Stop: 39645, Start Num: 5

Candidate Starts for MerCougar\_50:

(1, 38056), (2, 38368), (Start: 4 @38620 has 5 MA's), (Start: 5 @38623 has 25 MA's), (13, 38713), (17, 38866), (28, 39148), (29, 39151), (30, 39229), (31, 39235), (37, 39322), (40, 39421), (41, 39427), (44, 39463), (46, 39514), (47, 39544), (48, 39559), (52, 39607),

Gene: NadineRae\_48 Start: 34447, Stop: 35466, Start Num: 5

Candidate Starts for NadineRae\_48:

(3, 34333), (Start: 4 @34444 has 5 MA's), (Start: 5 @34447 has 25 MA's), (10, 34504), (12, 34528), (13, 34537), (19, 34813), (23, 34867), (27, 34951), (32, 35062), (33, 35086), (34, 35107), (38, 35185), (39, 35233), (40, 35242), (41, 35248), (46, 35335), (49, 35386),

Gene: NatB6\_48 Start: 37417, Stop: 38439, Start Num: 5

Candidate Starts for NatB6\_48:

(Start: 4 @37414 has 5 MA's), (Start: 5 @37417 has 25 MA's), (7, 37444), (13, 37507), (15, 37531), (17, 37660), (27, 37921), (31, 38029), (36, 38104), (38, 38158), (40, 38215), (41, 38221), (46, 38308), (47, 38338),

Gene: NovumRegina\_48 Start: 37723, Stop: 38748, Start Num: 4

Candidate Starts for NovumRegina\_48:

(Start: 4 @37723 has 5 MA's), (Start: 5 @37726 has 25 MA's), (7, 37753), (13, 37816), (15, 37840), (17, 37969), (27, 38230), (31, 38338), (36, 38413), (38, 38467), (40, 38524), (41, 38530), (46, 38617), (47, 38647),

Gene: Outis\_50 Start: 38317, Stop: 39339, Start Num: 5

Candidate Starts for Outis\_50:

(2, 38062), (Start: 4 @38314 has 5 MA's), (Start: 5 @38317 has 25 MA's), (8, 38347), (13, 38407), (17, 38560), (28, 38842), (29, 38845), (30, 38923), (31, 38929), (37, 39016), (40, 39115), (41, 39121), (44, 39157), (46, 39208), (47, 39238), (52, 39301),

Gene: Patio\_52 Start: 38572, Stop: 39594, Start Num: 5

Candidate Starts for Patio\_52:

(Start: 4 @38569 has 5 MA's), (Start: 5 @38572 has 25 MA's), (13, 38662), (14, 38677), (16, 38722), (20, 38953), (27, 39076), (31, 39184), (40, 39370), (41, 39376), (46, 39463), (47, 39493), (52, 39556),

Gene: Phomeo\_47 Start: 37995, Stop: 39017, Start Num: 5

Candidate Starts for Phomeo\_47:

(Start: 4 @37992 has 5 MA's), (Start: 5 @37995 has 25 MA's), (7, 38022), (13, 38085), (15, 38109), (17, 38238), (27, 38499), (31, 38607), (36, 38682), (38, 38736), (40, 38793), (41, 38799), (46, 38886),

(47, 38916),

Gene: Skysand\_51 Start: 38792, Stop: 39814, Start Num: 5

Candidate Starts for Skysand\_51:

(2, 38537), (Start: 4 @38789 has 5 MA's), (Start: 5 @38792 has 25 MA's), (13, 38882), (14, 38897), (16, 38942), (27, 39296), (31, 39404), (40, 39590), (41, 39596), (44, 39632), (46, 39683), (47, 39713), (52, 39776),

Gene: StarStruck\_50 Start: 38317, Stop: 39339, Start Num: 5

Candidate Starts for StarStruck\_50:

(2, 38062), (Start: 4 @38314 has 5 MA's), (Start: 5 @38317 has 25 MA's), (8, 38347), (13, 38407), (17, 38560), (28, 38842), (29, 38845), (30, 38923), (31, 38929), (37, 39016), (40, 39115), (41, 39121), (44, 39157), (46, 39208), (47, 39238), (52, 39301),

Gene: Sukkupi\_49 Start: 36753, Stop: 37772, Start Num: 5

Candidate Starts for Sukkupi\_49:

(3, 36639), (Start: 4 @36750 has 5 MA's), (Start: 5 @36753 has 25 MA's), (10, 36810), (12, 36834), (13, 36843), (19, 37119), (23, 37173), (27, 37257), (32, 37368), (33, 37392), (34, 37413), (38, 37491), (39, 37539), (40, 37548), (41, 37554), (46, 37641), (49, 37692),

Gene: Tracker\_48 Start: 37144, Stop: 38166, Start Num: 5

Candidate Starts for Tracker\_48:

(Start: 4 @37141 has 5 MA's), (Start: 5 @37144 has 25 MA's), (7, 37171), (13, 37234), (15, 37258), (17, 37387), (27, 37648), (31, 37756), (36, 37831), (38, 37885), (40, 37942), (41, 37948), (46, 38035), (47, 38065),

Gene: Turuncu\_53 Start: 38719, Stop: 39741, Start Num: 5

Candidate Starts for Turuncu\_53:

(1, 38152), (2, 38464), (Start: 4 @38716 has 5 MA's), (Start: 5 @38719 has 25 MA's), (8, 38749), (13, 38809), (29, 39247), (31, 39331), (36, 39406), (37, 39418), (40, 39517), (41, 39523), (46, 39610), (51, 39688), (52, 39703),

Gene: Wheezy\_48 Start: 37349, Stop: 38371, Start Num: 5

Candidate Starts for Wheezy\_48:

(Start: 4 @37346 has 5 MA's), (Start: 5 @37349 has 25 MA's), (7, 37376), (13, 37439), (15, 37463), (17, 37592), (27, 37853), (31, 37961), (36, 38036), (38, 38090), (40, 38147), (41, 38153), (46, 38240), (47, 38270),

Gene: WhoseManz\_49 Start: 34810, Stop: 35832, Start Num: 4

Candidate Starts for WhoseManz\_49:

(3, 34699), (Start: 4 @34810 has 5 MA's), (Start: 5 @34813 has 25 MA's), (10, 34870), (12, 34894), (13, 34903), (19, 35179), (23, 35233), (27, 35317), (32, 35428), (33, 35452), (34, 35473), (38, 35551), (39, 35599), (40, 35608), (41, 35614), (46, 35701), (49, 35752),

Gene: Yndexa\_49 Start: 36753, Stop: 37772, Start Num: 5

Candidate Starts for Yndexa\_49:

(3, 36639), (Start: 4 @36750 has 5 MA's), (Start: 5 @36753 has 25 MA's), (10, 36810), (12, 36834), (13, 36843), (19, 37119), (23, 37173), (27, 37257), (32, 37368), (33, 37392), (34, 37413), (38, 37491), (39, 37539), (40, 37548), (41, 37554), (46, 37641), (49, 37692),