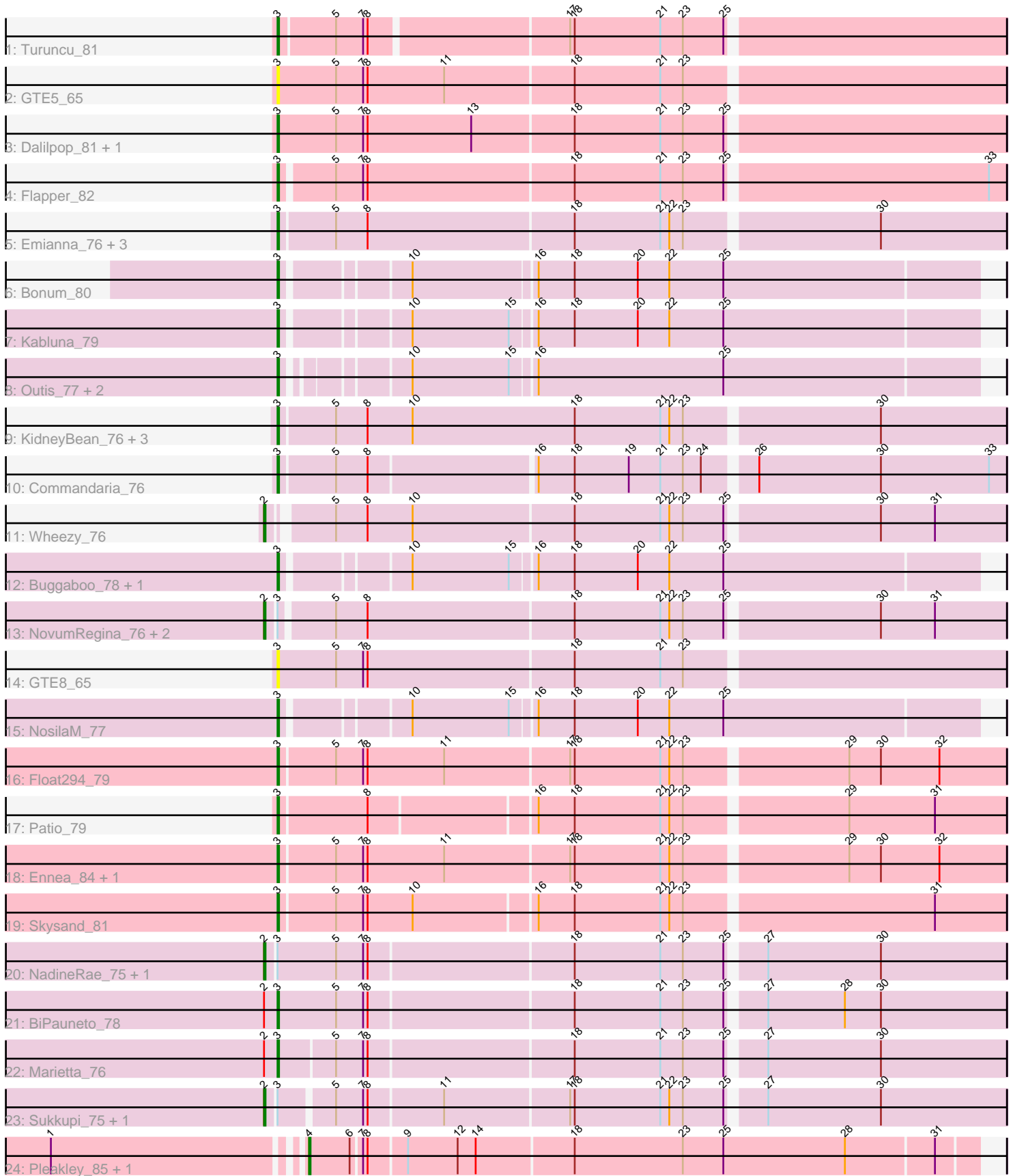


# Pham 2179



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 2179 Report

This analysis was run 04/28/24 on database version 559.

Pham number 2179 has 40 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Turuncu\_81
- Track 2 : GTE5\_65
- Track 3 : Dalilpop\_81, GRU1\_66
- Track 4 : Flapper\_82
- Track 5 : Emianna\_76, Kurt\_76, NatB6\_76, Arti\_75
- Track 6 : Bonum\_80
- Track 7 : Kabluna\_79
- Track 8 : Outis\_77, MerCougar\_79, StarStruck\_77
- Track 9 : KidneyBean\_76, Jifall16\_75, Phomeo\_76, Foxboro\_76
- Track 10 : Commandaria\_76
- Track 11 : Wheezy\_76
- Track 12 : Buggaboo\_78, SuperSulley\_78
- Track 13 : NovumRegina\_76, GrootJr\_78, Tracker\_76
- Track 14 : GTE8\_65
- Track 15 : NosilaM\_77
- Track 16 : Float294\_79
- Track 17 : Patio\_79
- Track 18 : Ennea\_84, Lollipop1437\_80
- Track 19 : Skysand\_81
- Track 20 : NadineRae\_75, WhoseManz\_75
- Track 21 : BiPauneto\_78
- Track 22 : Marietta\_76
- Track 23 : Sukkupi\_75, Yndexa\_75
- Track 24 : Pleakley\_85, Fury\_85

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

The start number called the most often in the published annotations is 3, it was called in 26 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti\_75, BiPauneto\_78, Bonum\_80, Buggaboo\_78, Commandaria\_76, Dalilpop\_81, Emianna\_76, Ennea\_84, Flapper\_82, Float294\_79, Foxboro\_76, GRU1\_66, GTE5\_65, GTE8\_65, Jifall16\_75, Kabluna\_79, KidneyBean\_76, Kurt\_76,

Lollipop1437\_80, Marietta\_76, MerCougar\_79, NatB6\_76, NosilaM\_77, Outis\_77, Patio\_79, Phomeo\_76, Skysand\_81, StarStruck\_77, SuperSulley\_78, Turuncu\_81,

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

- GrootJr\_78, NadineRae\_75, NovumRegina\_76, Sukkupi\_75, Tracker\_76, WhoseManz\_75, Yndexa\_75,

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

- Fury\_85, Pleakley\_85, Wheezy\_76,

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

Start 2:

- Found in 10 of 40 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 8 of 36
- Called 80.0% of time when present
- Phage (with cluster) where this start called: GrootJr\_78 (CR2), NadineRae\_75 (CR4), NovumRegina\_76 (CR2), Sukkupi\_75 (CR4), Tracker\_76 (CR2), Wheezy\_76 (CR2), WhoseManz\_75 (CR4), Yndexa\_75 (CR4),

Start 3:

- Found in 37 of 40 ( 92.5% ) of genes in pham
- Manual Annotations of this start: 26 of 36
- Called 81.1% of time when present
- Phage (with cluster) where this start called: Arti\_75 (CR2), BiPauneto\_78 (CR4), Bonum\_80 (CR2), Buggaboo\_78 (CR2), Commandaria\_76 (CR2), Dalilpop\_81 (CR1), Emianna\_76 (CR2), Ennea\_84 (CR3), Flapper\_82 (CR1), Float294\_79 (CR3), Foxboro\_76 (CR2), GRU1\_66 (CR1), GTE5\_65 (CR1), GTE8\_65 (CR2), Jifall16\_75 (CR2), Kabluna\_79 (CR2), KidneyBean\_76 (CR2), Kurt\_76 (CR2), Lollipop1437\_80 (CR3), Marietta\_76 (CR4), MerCougar\_79 (CR2), NatB6\_76 (CR2), NosilaM\_77 (CR2), Outis\_77 (CR2), Patio\_79 (CR3), Phomeo\_76 (CR2), Skysand\_81 (CR3), StarStruck\_77 (CR2), SuperSulley\_78 (CR2), Turuncu\_81 (CR1),

Start 4:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 2 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fury\_85 (CR5), Pleakley\_85 (CR5),

### **Summary by clusters:**

There are 5 clusters represented in this pham: CR2, CR3, CR1, CR4, CR5,

Info for manual annotations of cluster CR1:

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

Info for manual annotations of cluster CR2:

- Start number 2 was manually annotated 4 times for cluster CR2.
- Start number 3 was manually annotated 16 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 3 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 2 was manually annotated 4 times for cluster CR4.
- Start number 3 was manually annotated 2 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: Arti\_75 Start: 56839, Stop: 56366, Start Num: 3

Candidate Starts for Arti\_75:

(Start: 3 @56839 has 26 MA's), (5, 56803), (8, 56782), (18, 56644), (21, 56587), (22, 56581), (23, 56572), (30, 56449),

Gene: BiPauneto\_78 Start: 56196, Stop: 55726, Start Num: 3

Candidate Starts for BiPauneto\_78:

(Start: 2 @56202 has 8 MA's), (Start: 3 @56196 has 26 MA's), (5, 56157), (7, 56139), (8, 56136), (18, 56004), (21, 55947), (23, 55932), (25, 55905), (27, 55884), (28, 55833), (30, 55809),

Gene: Bonum\_80 Start: 58232, Stop: 57789, Start Num: 3

Candidate Starts for Bonum\_80:

(Start: 3 @58232 has 26 MA's), (10, 58157), (16, 58079), (18, 58055), (20, 58013), (22, 57992), (25, 57956),

Gene: Buggaboo\_78 Start: 58798, Stop: 58355, Start Num: 3

Candidate Starts for Buggaboo\_78:

(Start: 3 @58798 has 26 MA's), (10, 58723), (15, 58660), (16, 58645), (18, 58621), (20, 58579), (22, 58558), (25, 58522),

Gene: Commandaria\_76 Start: 57786, Stop: 57322, Start Num: 3

Candidate Starts for Commandaria\_76:

(Start: 3 @57786 has 26 MA's), (5, 57750), (8, 57729), (16, 57624), (18, 57600), (19, 57564), (21, 57543), (23, 57528), (24, 57516), (26, 57486), (30, 57405), (33, 57333),

Gene: Dalilpop\_81 Start: 59117, Stop: 58644, Start Num: 3

Candidate Starts for Dalilpop\_81:

(Start: 3 @59117 has 26 MA's), (5, 59078), (7, 59060), (8, 59057), (13, 58988), (18, 58922), (21, 58865), (23, 58850), (25, 58823),

Gene: Emianna\_76 Start: 58047, Stop: 57577, Start Num: 3

Candidate Starts for Emianna\_76:

(Start: 3 @58047 has 26 MA's), (5, 58011), (8, 57990), (18, 57855), (21, 57798), (22, 57792), (23, 57783), (30, 57660),

Gene: Ennea\_84 Start: 59564, Stop: 59094, Start Num: 3

Candidate Starts for Ennea\_84:

(Start: 3 @59564 has 26 MA's), (5, 59528), (7, 59510), (8, 59507), (11, 59456), (17, 59375), (18, 59372), (21, 59315), (22, 59309), (23, 59300), (29, 59198), (30, 59177), (32, 59138),

Gene: Flapper\_82 Start: 59173, Stop: 58706, Start Num: 3

Candidate Starts for Flapper\_82:

(Start: 3 @59173 has 26 MA's), (5, 59140), (7, 59122), (8, 59119), (18, 58984), (21, 58927), (23, 58912), (25, 58885), (33, 58717),

Gene: Float294\_79 Start: 59469, Stop: 58999, Start Num: 3

Candidate Starts for Float294\_79:

(Start: 3 @59469 has 26 MA's), (5, 59433), (7, 59415), (8, 59412), (11, 59361), (17, 59280), (18, 59277), (21, 59220), (22, 59214), (23, 59205), (29, 59103), (30, 59082), (32, 59043),

Gene: Foxboro\_76 Start: 58262, Stop: 57789, Start Num: 3

Candidate Starts for Foxboro\_76:

(Start: 3 @58262 has 26 MA's), (5, 58226), (8, 58205), (10, 58175), (18, 58067), (21, 58010), (22, 58004), (23, 57995), (30, 57872),

Gene: Fury\_85 Start: 56946, Stop: 56515, Start Num: 4

Candidate Starts for Fury\_85:

(1, 57102), (Start: 4 @56946 has 2 MA's), (6, 56919), (7, 56913), (8, 56910), (9, 56886), (12, 56853), (14, 56841), (18, 56778), (23, 56706), (25, 56679), (28, 56598), (31, 56541),

Gene: GRU1\_66 Start: 50606, Stop: 50133, Start Num: 3

Candidate Starts for GRU1\_66:

(Start: 3 @50606 has 26 MA's), (5, 50567), (7, 50549), (8, 50546), (13, 50477), (18, 50411), (21, 50354), (23, 50339), (25, 50312),

Gene: GTE5\_65 Start: 51345, Stop: 50872, Start Num: 3

Candidate Starts for GTE5\_65:

(Start: 3 @51345 has 26 MA's), (5, 51306), (7, 51288), (8, 51285), (11, 51234), (18, 51150), (21, 51093), (23, 51078),

Gene: GTE8\_65 Start: 51213, Stop: 50740, Start Num: 3

Candidate Starts for GTE8\_65:

(Start: 3 @51213 has 26 MA's), (5, 51174), (7, 51156), (8, 51153), (18, 51018), (21, 50961), (23, 50946),

Gene: GrootJr\_78 Start: 57443, Stop: 56970, Start Num: 2

Candidate Starts for GrootJr\_78:

(Start: 2 @57443 has 8 MA's), (Start: 3 @57437 has 26 MA's), (5, 57404), (8, 57383), (18, 57248), (21, 57191), (22, 57185), (23, 57176), (25, 57149), (30, 57053), (31, 57017),

Gene: Jifall16\_75 Start: 57755, Stop: 57282, Start Num: 3

Candidate Starts for Jifall16\_75:

(Start: 3 @57755 has 26 MA's), (5, 57719), (8, 57698), (10, 57668), (18, 57560), (21, 57503), (22, 57497), (23, 57488), (30, 57365),

Gene: Kabluna\_79 Start: 57570, Stop: 57127, Start Num: 3

Candidate Starts for Kabluna\_79:

(Start: 3 @57570 has 26 MA's), (10, 57495), (15, 57432), (16, 57417), (18, 57393), (20, 57351), (22, 57330), (25, 57294),

Gene: KidneyBean\_76 Start: 57879, Stop: 57406, Start Num: 3

Candidate Starts for KidneyBean\_76:

(Start: 3 @57879 has 26 MA's), (5, 57843), (8, 57822), (10, 57792), (18, 57684), (21, 57627), (22, 57621), (23, 57612), (30, 57489),

Gene: Kurt\_76 Start: 58062, Stop: 57592, Start Num: 3

Candidate Starts for Kurt\_76:

(Start: 3 @58062 has 26 MA's), (5, 58026), (8, 58005), (18, 57870), (21, 57813), (22, 57807), (23, 57798), (30, 57675),

Gene: Lollipop1437\_80 Start: 59243, Stop: 58773, Start Num: 3

Candidate Starts for Lollipop1437\_80:

(Start: 3 @59243 has 26 MA's), (5, 59207), (7, 59189), (8, 59186), (11, 59135), (17, 59054), (18, 59051), (21, 58994), (22, 58988), (23, 58979), (29, 58877), (30, 58856), (32, 58817),

Gene: Marietta\_76 Start: 54088, Stop: 53621, Start Num: 3

Candidate Starts for Marietta\_76:

(Start: 2 @54094 has 8 MA's), (Start: 3 @54088 has 26 MA's), (5, 54052), (7, 54034), (8, 54031), (18, 53899), (21, 53842), (23, 53827), (25, 53800), (27, 53779), (30, 53704),

Gene: MerCougar\_79 Start: 59252, Stop: 58815, Start Num: 3

Candidate Starts for MerCougar\_79:

(Start: 3 @59252 has 26 MA's), (10, 59183), (15, 59120), (16, 59105), (25, 58982),

Gene: NadineRae\_75 Start: 53705, Stop: 53229, Start Num: 2

Candidate Starts for NadineRae\_75:

(Start: 2 @53705 has 8 MA's), (Start: 3 @53699 has 26 MA's), (5, 53660), (7, 53642), (8, 53639), (18, 53507), (21, 53450), (23, 53435), (25, 53408), (27, 53387), (30, 53312),

Gene: NatB6\_76 Start: 57155, Stop: 56682, Start Num: 3

Candidate Starts for NatB6\_76:

(Start: 3 @57155 has 26 MA's), (5, 57119), (8, 57098), (18, 56960), (21, 56903), (22, 56897), (23, 56888), (30, 56765),

Gene: NosilaM\_77 Start: 57872, Stop: 57429, Start Num: 3

Candidate Starts for NosilaM\_77:

(Start: 3 @57872 has 26 MA's), (10, 57797), (15, 57734), (16, 57719), (18, 57695), (20, 57653), (22, 57632), (25, 57596),

Gene: NovumRegina\_76 Start: 57442, Stop: 56969, Start Num: 2

Candidate Starts for NovumRegina\_76:

(Start: 2 @57442 has 8 MA's), (Start: 3 @57436 has 26 MA's), (5, 57403), (8, 57382), (18, 57247), (21, 57190), (22, 57184), (23, 57175), (25, 57148), (30, 57052), (31, 57016),

Gene: Outis\_77 Start: 58344, Stop: 57907, Start Num: 3

Candidate Starts for Outis\_77:

(Start: 3 @58344 has 26 MA's), (10, 58275), (15, 58212), (16, 58197), (25, 58074),

Gene: Patio\_79 Start: 58456, Stop: 57992, Start Num: 3

Candidate Starts for Patio\_79:

(Start: 3 @58456 has 26 MA's), (8, 58399), (16, 58294), (18, 58270), (21, 58213), (22, 58207), (23, 58198), (29, 58096), (31, 58039),

Gene: Phomeo\_76 Start: 57751, Stop: 57278, Start Num: 3

Candidate Starts for Phomeo\_76:

(Start: 3 @57751 has 26 MA's), (5, 57715), (8, 57694), (10, 57664), (18, 57556), (21, 57499), (22, 57493), (23, 57484), (30, 57361),

Gene: Pleakley\_85 Start: 56947, Stop: 56516, Start Num: 4

Candidate Starts for Pleakley\_85:

(1, 57103), (Start: 4 @56947 has 2 MA's), (6, 56920), (7, 56914), (8, 56911), (9, 56887), (12, 56854), (14, 56842), (18, 56779), (23, 56707), (25, 56680), (28, 56599), (31, 56542),

Gene: Skysand\_81 Start: 59122, Stop: 58655, Start Num: 3

Candidate Starts for Skysand\_81:

(Start: 3 @59122 has 26 MA's), (5, 59086), (7, 59068), (8, 59065), (10, 59035), (16, 58957), (18, 58933), (21, 58876), (22, 58870), (23, 58861), (31, 58702),

Gene: StarStruck\_77 Start: 58344, Stop: 57907, Start Num: 3

Candidate Starts for StarStruck\_77:

(Start: 3 @58344 has 26 MA's), (10, 58275), (15, 58212), (16, 58197), (25, 58074),

Gene: Sukkupi\_75 Start: 55743, Stop: 55273, Start Num: 2

Candidate Starts for Sukkupi\_75:

(Start: 2 @55743 has 8 MA's), (Start: 3 @55737 has 26 MA's), (5, 55704), (7, 55686), (8, 55683), (11, 55635), (17, 55554), (18, 55551), (21, 55494), (22, 55488), (23, 55479), (25, 55452), (27, 55431), (30, 55356),

Gene: SuperSulley\_78 Start: 58798, Stop: 58355, Start Num: 3

Candidate Starts for SuperSulley\_78:

(Start: 3 @58798 has 26 MA's), (10, 58723), (15, 58660), (16, 58645), (18, 58621), (20, 58579), (22, 58558), (25, 58522),

Gene: Tracker\_76 Start: 56898, Stop: 56425, Start Num: 2

Candidate Starts for Tracker\_76:

(Start: 2 @56898 has 8 MA's), (Start: 3 @56892 has 26 MA's), (5, 56859), (8, 56838), (18, 56703), (21, 56646), (22, 56640), (23, 56631), (25, 56604), (30, 56508), (31, 56472),

Gene: Turuncu\_81 Start: 58592, Stop: 58128, Start Num: 3

Candidate Starts for Turuncu\_81:

(Start: 3 @58592 has 26 MA's), (5, 58556), (7, 58538), (8, 58535), (17, 58409), (18, 58406), (21, 58349), (23, 58334), (25, 58307),

Gene: Wheezy\_76 Start: 57110, Stop: 56640, Start Num: 2

Candidate Starts for Wheezy\_76:

(Start: 2 @57110 has 8 MA's), (5, 57074), (8, 57053), (10, 57023), (18, 56918), (21, 56861), (22, 56855), (23, 56846), (25, 56819), (30, 56723), (31, 56687),

Gene: WhoseManz\_75 Start: 53761, Stop: 53288, Start Num: 2

Candidate Starts for WhoseManz\_75:

(Start: 2 @53761 has 8 MA's), (Start: 3 @53755 has 26 MA's), (5, 53719), (7, 53701), (8, 53698), (18, 53566), (21, 53509), (23, 53494), (25, 53467), (27, 53446), (30, 53371),

Gene: Yndexa\_75 Start: 55743, Stop: 55273, Start Num: 2

Candidate Starts for Yndexa\_75:

(Start: 2 @55743 has 8 MA's), (Start: 3 @55737 has 26 MA's), (5, 55704), (7, 55686), (8, 55683), (11, 55635), (17, 55554), (18, 55551), (21, 55494), (22, 55488), (23, 55479), (25, 55452), (27, 55431), (30, 55356),