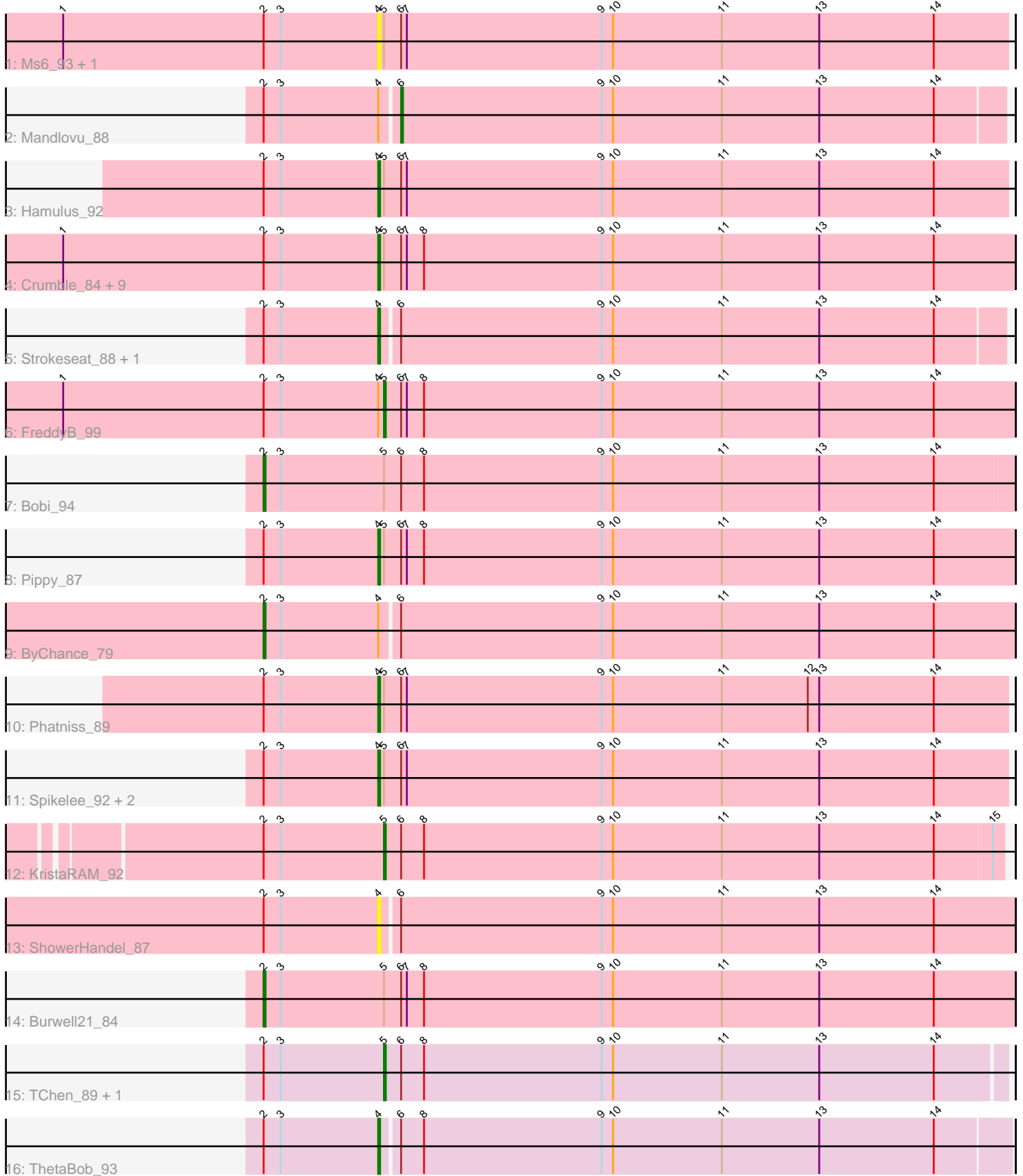


Pham 163827



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 163827 Report

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

Pham number 163827 has 30 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Ms6\_93, PhesterPhotato\_94
- Track 2 : Mandlovu\_88
- Track 3 : Hamulus\_92
- Track 4 : Crumble\_84, SwagPiggett\_91, BobaPhett\_91, Brocalys\_81, BlueCrab\_92, Lizziana\_91, Gorge\_89, LastJedi\_81, Cabrinians\_86, Saal\_87
- Track 5 : Strokeseat\_88, Hlubikazi\_88
- Track 6 : FreddyB\_99
- Track 7 : Bobi\_94
- Track 8 : Pippy\_87
- Track 9 : ByChance\_79
- Track 10 : Phatniss\_89
- Track 11 : Spikelee\_92, MilleniumForce\_91, BuzzLyseyear\_99
- Track 12 : KristaRAM\_92
- Track 13 : ShowerHandel\_87
- Track 14 : Burwell21\_84
- Track 15 : TChen\_89, LunaStella\_79
- Track 16 : ThetaBob\_93

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

Genes that call this "Most Annotated" start:

- BlueCrab\_92, BobaPhett\_91, Brocalys\_81, BuzzLyseyear\_99, Cabrinians\_86, Crumble\_84, Gorge\_89, Hamulus\_92, Hlubikazi\_88, LastJedi\_81, Lizziana\_91, MilleniumForce\_91, Ms6\_93, Phatniss\_89, PhesterPhotato\_94, Pippy\_87, Saal\_87, ShowerHandel\_87, Spikelee\_92, Strokeseat\_88, SwagPiggett\_91, ThetaBob\_93,

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

- ByChance\_79, FreddyB\_99, Mandlovu\_88,

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

- Bobi\_94, Burwell21\_84, KristaRAM\_92, LunaStella\_79, TChen\_89,

## Summary by start number:

### Start 2:

- Found in 30 of 30 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 3 of 25
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Bobi\_94 (F1), Burwell21\_84 (F1), ByChance\_79 (F1),

### Start 4:

- Found in 25 of 30 ( 83.3% ) of genes in pham
- Manual Annotations of this start: 18 of 25
- Called 88.0% of time when present
- Phage (with cluster) where this start called: BlueCrab\_92 (F1), BobaPhett\_91 (F1), Brocalys\_81 (F1), BuzzLyseyear\_99 (F1), Cabrinians\_86 (F1), Crumble\_84 (F1), Gorge\_89 (F1), Hamulus\_92 (F1), Hlubikazi\_88 (F1), LastJedi\_81 (F1), Lizziana\_91 (F1), MilleniumForce\_91 (F1), Ms6\_93 (F1), Phatniss\_89 (F1), PhesterPhotato\_94 (F1), Pippy\_87 (F1), Saal\_87 (F1), ShowerHandel\_87 (F1), Spikelee\_92 (F1), Strokeseat\_88 (F1), SwagPiggett\_91 (F1), ThetaBob\_93 (F4),

### Start 5:

- Found in 24 of 30 ( 80.0% ) of genes in pham
- Manual Annotations of this start: 3 of 25
- Called 16.7% of time when present
- Phage (with cluster) where this start called: FreddyB\_99 (F1), KristaRAM\_92 (F1), LunaStella\_79 (F4), TChen\_89 (F4),

### Start 6:

- Found in 30 of 30 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Mandlovu\_88 (F1),

## Summary by clusters:

There are 2 clusters represented in this pham: F1, F4,

### Info for manual annotations of cluster F1:

- Start number 2 was manually annotated 3 times for cluster F1.
- Start number 4 was manually annotated 17 times for cluster F1.
- Start number 5 was manually annotated 2 times for cluster F1.
- Start number 6 was manually annotated 1 time for cluster F1.

### Info for manual annotations of cluster F4:

- Start number 4 was manually annotated 1 time for cluster F4.
- Start number 5 was manually annotated 1 time for cluster F4.

## Gene Information:

Gene: BlueCrab\_92 Start: 52153, Stop: 52485, Start Num: 4

Candidate Starts for BlueCrab\_92:

(1, 51988), (Start: 2 @52093 has 3 MA's), (3, 52102), (Start: 4 @52153 has 18 MA's), (Start: 5 @52156 has 3 MA's), (Start: 6 @52165 has 1 MA's), (7, 52168), (8, 52177), (9, 52270), (10, 52276), (11, 52333), (13, 52384), (14, 52444),

Gene: BobaPhett\_91 Start: 52885, Stop: 53217, Start Num: 4

Candidate Starts for BobaPhett\_91:

(1, 52720), (Start: 2 @52825 has 3 MA's), (3, 52834), (Start: 4 @52885 has 18 MA's), (Start: 5 @52888 has 3 MA's), (Start: 6 @52897 has 1 MA's), (7, 52900), (8, 52909), (9, 53002), (10, 53008), (11, 53065), (13, 53116), (14, 53176),

Gene: Bobi\_94 Start: 52628, Stop: 53020, Start Num: 2

Candidate Starts for Bobi\_94:

(Start: 2 @52628 has 3 MA's), (3, 52637), (Start: 5 @52691 has 3 MA's), (Start: 6 @52700 has 1 MA's), (8, 52712), (9, 52805), (10, 52811), (11, 52868), (13, 52919), (14, 52979),

Gene: Brocalys\_81 Start: 48365, Stop: 48697, Start Num: 4

Candidate Starts for Brocalys\_81:

(1, 48200), (Start: 2 @48305 has 3 MA's), (3, 48314), (Start: 4 @48365 has 18 MA's), (Start: 5 @48368 has 3 MA's), (Start: 6 @48377 has 1 MA's), (7, 48380), (8, 48389), (9, 48482), (10, 48488), (11, 48545), (13, 48596), (14, 48656),

Gene: Burwell21\_84 Start: 50591, Stop: 50983, Start Num: 2

Candidate Starts for Burwell21\_84:

(Start: 2 @50591 has 3 MA's), (3, 50600), (Start: 5 @50654 has 3 MA's), (Start: 6 @50663 has 1 MA's), (7, 50666), (8, 50675), (9, 50768), (10, 50774), (11, 50831), (13, 50882), (14, 50942),

Gene: BuzzLyseyear\_99 Start: 54015, Stop: 54335, Start Num: 4

Candidate Starts for BuzzLyseyear\_99:

(Start: 2 @53955 has 3 MA's), (3, 53964), (Start: 4 @54015 has 18 MA's), (Start: 5 @54018 has 3 MA's), (Start: 6 @54027 has 1 MA's), (7, 54030), (9, 54132), (10, 54138), (11, 54195), (13, 54246), (14, 54306),

Gene: ByChance\_79 Start: 46220, Stop: 46609, Start Num: 2

Candidate Starts for ByChance\_79:

(Start: 2 @46220 has 3 MA's), (3, 46229), (Start: 4 @46280 has 18 MA's), (Start: 6 @46289 has 1 MA's), (9, 46394), (10, 46400), (11, 46457), (13, 46508), (14, 46568),

Gene: Cabrinians\_86 Start: 50285, Stop: 50617, Start Num: 4

Candidate Starts for Cabrinians\_86:

(1, 50120), (Start: 2 @50225 has 3 MA's), (3, 50234), (Start: 4 @50285 has 18 MA's), (Start: 5 @50288 has 3 MA's), (Start: 6 @50297 has 1 MA's), (7, 50300), (8, 50309), (9, 50402), (10, 50408), (11, 50465), (13, 50516), (14, 50576),

Gene: Crumble\_84 Start: 47010, Stop: 47342, Start Num: 4

Candidate Starts for Crumble\_84:

(1, 46845), (Start: 2 @46950 has 3 MA's), (3, 46959), (Start: 4 @47010 has 18 MA's), (Start: 5 @47013 has 3 MA's), (Start: 6 @47022 has 1 MA's), (7, 47025), (8, 47034), (9, 47127), (10, 47133), (11, 47190), (13, 47241), (14, 47301),

Gene: FreddyB\_99 Start: 51935, Stop: 52264, Start Num: 5

Candidate Starts for FreddyB\_99:

(1, 51767), (Start: 2 @51872 has 3 MA's), (3, 51881), (Start: 4 @51932 has 18 MA's), (Start: 5 @51935 has 3 MA's), (Start: 6 @51944 has 1 MA's), (7, 51947), (8, 51956), (9, 52049), (10, 52055), (11, 52112), (13, 52163), (14, 52223),

Gene: Gorge\_89 Start: 51559, Stop: 51891, Start Num: 4

Candidate Starts for Gorge\_89:

(1, 51394), (Start: 2 @51499 has 3 MA's), (3, 51508), (Start: 4 @51559 has 18 MA's), (Start: 5 @51562 has 3 MA's), (Start: 6 @51571 has 1 MA's), (7, 51574), (8, 51583), (9, 51676), (10, 51682), (11, 51739), (13, 51790), (14, 51850),

Gene: Hamulus\_92 Start: 51197, Stop: 51526, Start Num: 4

Candidate Starts for Hamulus\_92:

(Start: 2 @51137 has 3 MA's), (3, 51146), (Start: 4 @51197 has 18 MA's), (Start: 5 @51200 has 3 MA's), (Start: 6 @51209 has 1 MA's), (7, 51212), (9, 51314), (10, 51320), (11, 51377), (13, 51428), (14, 51488),

Gene: Hlubikazi\_88 Start: 49062, Stop: 49385, Start Num: 4

Candidate Starts for Hlubikazi\_88:

(Start: 2 @49002 has 3 MA's), (3, 49011), (Start: 4 @49062 has 18 MA's), (Start: 6 @49071 has 1 MA's), (9, 49176), (10, 49182), (11, 49239), (13, 49290), (14, 49350),

Gene: KristaRAM\_92 Start: 50937, Stop: 51260, Start Num: 5

Candidate Starts for KristaRAM\_92:

(Start: 2 @50874 has 3 MA's), (3, 50883), (Start: 5 @50937 has 3 MA's), (Start: 6 @50946 has 1 MA's), (8, 50958), (9, 51051), (10, 51057), (11, 51114), (13, 51165), (14, 51225), (15, 51255),

Gene: LastJedi\_81 Start: 48759, Stop: 49091, Start Num: 4

Candidate Starts for LastJedi\_81:

(1, 48594), (Start: 2 @48699 has 3 MA's), (3, 48708), (Start: 4 @48759 has 18 MA's), (Start: 5 @48762 has 3 MA's), (Start: 6 @48771 has 1 MA's), (7, 48774), (8, 48783), (9, 48876), (10, 48882), (11, 48939), (13, 48990), (14, 49050),

Gene: Lizziana\_91 Start: 52008, Stop: 52340, Start Num: 4

Candidate Starts for Lizziana\_91:

(1, 51843), (Start: 2 @51948 has 3 MA's), (3, 51957), (Start: 4 @52008 has 18 MA's), (Start: 5 @52011 has 3 MA's), (Start: 6 @52020 has 1 MA's), (7, 52023), (8, 52032), (9, 52125), (10, 52131), (11, 52188), (13, 52239), (14, 52299),

Gene: LunaStella\_79 Start: 49824, Stop: 50147, Start Num: 5

Candidate Starts for LunaStella\_79:

(Start: 2 @49761 has 3 MA's), (3, 49770), (Start: 5 @49824 has 3 MA's), (Start: 6 @49833 has 1 MA's), (8, 49845), (9, 49938), (10, 49944), (11, 50001), (13, 50052), (14, 50112),

Gene: Mandlovu\_88 Start: 49013, Stop: 49327, Start Num: 6

Candidate Starts for Mandlovu\_88:

(Start: 2 @48944 has 3 MA's), (3, 48953), (Start: 4 @49004 has 18 MA's), (Start: 6 @49013 has 1 MA's), (9, 49118), (10, 49124), (11, 49181), (13, 49232), (14, 49292),

Gene: MilleniumForce\_91 Start: 51910, Stop: 52242, Start Num: 4

Candidate Starts for MilleniumForce\_91:

(Start: 2 @51850 has 3 MA's), (3, 51859), (Start: 4 @51910 has 18 MA's), (Start: 5 @51913 has 3 MA's), (Start: 6 @51922 has 1 MA's), (7, 51925), (9, 52027), (10, 52033), (11, 52090), (13, 52141), (14, 52201),

Gene: Ms6\_93 Start: 48079, Stop: 48408, Start Num: 4

Candidate Starts for Ms6\_93:

(1, 47914), (Start: 2 @48019 has 3 MA's), (3, 48028), (Start: 4 @48079 has 18 MA's), (Start: 5 @48082 has 3 MA's), (Start: 6 @48091 has 1 MA's), (7, 48094), (9, 48196), (10, 48202), (11, 48259), (13, 48310), (14, 48370),

Gene: Phatniss\_89 Start: 50807, Stop: 51136, Start Num: 4

Candidate Starts for Phatniss\_89:

(Start: 2 @50747 has 3 MA's), (3, 50756), (Start: 4 @50807 has 18 MA's), (Start: 5 @50810 has 3 MA's), (Start: 6 @50819 has 1 MA's), (7, 50822), (9, 50924), (10, 50930), (11, 50987), (12, 51032), (13, 51038), (14, 51098),

Gene: PhesterPhotato\_94 Start: 51455, Stop: 51784, Start Num: 4

Candidate Starts for PhesterPhotato\_94:

(1, 51290), (Start: 2 @51395 has 3 MA's), (3, 51404), (Start: 4 @51455 has 18 MA's), (Start: 5 @51458 has 3 MA's), (Start: 6 @51467 has 1 MA's), (7, 51470), (9, 51572), (10, 51578), (11, 51635), (13, 51686), (14, 51746),

Gene: Pippy\_87 Start: 49988, Stop: 50320, Start Num: 4

Candidate Starts for Pippy\_87:

(Start: 2 @49928 has 3 MA's), (3, 49937), (Start: 4 @49988 has 18 MA's), (Start: 5 @49991 has 3 MA's), (Start: 6 @50000 has 1 MA's), (7, 50003), (8, 50012), (9, 50105), (10, 50111), (11, 50168), (13, 50219), (14, 50279),

Gene: Saal\_87 Start: 51379, Stop: 51711, Start Num: 4

Candidate Starts for Saal\_87:

(1, 51214), (Start: 2 @51319 has 3 MA's), (3, 51328), (Start: 4 @51379 has 18 MA's), (Start: 5 @51382 has 3 MA's), (Start: 6 @51391 has 1 MA's), (7, 51394), (8, 51403), (9, 51496), (10, 51502), (11, 51559), (13, 51610), (14, 51670),

Gene: ShowerHandel\_87 Start: 50218, Stop: 50547, Start Num: 4

Candidate Starts for ShowerHandel\_87:

(Start: 2 @50158 has 3 MA's), (3, 50167), (Start: 4 @50218 has 18 MA's), (Start: 6 @50227 has 1 MA's), (9, 50332), (10, 50338), (11, 50395), (13, 50446), (14, 50506),

Gene: Spikelee\_92 Start: 53142, Stop: 53471, Start Num: 4

Candidate Starts for Spikelee\_92:

(Start: 2 @53082 has 3 MA's), (3, 53091), (Start: 4 @53142 has 18 MA's), (Start: 5 @53145 has 3 MA's), (Start: 6 @53154 has 1 MA's), (7, 53157), (9, 53259), (10, 53265), (11, 53322), (13, 53373), (14, 53433),

Gene: Strokeseat\_88 Start: 49061, Stop: 49384, Start Num: 4

Candidate Starts for Strokeseat\_88:

(Start: 2 @49001 has 3 MA's), (3, 49010), (Start: 4 @49061 has 18 MA's), (Start: 6 @49070 has 1 MA's), (9, 49175), (10, 49181), (11, 49238), (13, 49289), (14, 49349),

Gene: SwagPigglett\_91 Start: 52515, Stop: 52847, Start Num: 4

Candidate Starts for SwagPigglett\_91:

(1, 52350), (Start: 2 @52455 has 3 MA's), (3, 52464), (Start: 4 @52515 has 18 MA's), (Start: 5 @52518 has 3 MA's), (Start: 6 @52527 has 1 MA's), (7, 52530), (8, 52539), (9, 52632), (10, 52638), (11, 52695), (13, 52746), (14, 52806),

Gene: TChen\_89 Start: 51775, Stop: 52098, Start Num: 5

Candidate Starts for TChen\_89:

(Start: 2 @51712 has 3 MA's), (3, 51721), (Start: 5 @51775 has 3 MA's), (Start: 6 @51784 has 1 MA's), (8, 51796), (9, 51889), (10, 51895), (11, 51952), (13, 52003), (14, 52063),

Gene: ThetaBob\_93 Start: 50592, Stop: 50918, Start Num: 4

Candidate Starts for ThetaBob\_93:

(Start: 2 @50532 has 3 MA's), (3, 50541), (Start: 4 @50592 has 18 MA's), (Start: 6 @50601 has 1 MA's), (8, 50613), (9, 50706), (10, 50712), (11, 50769), (13, 50820), (14, 50880),