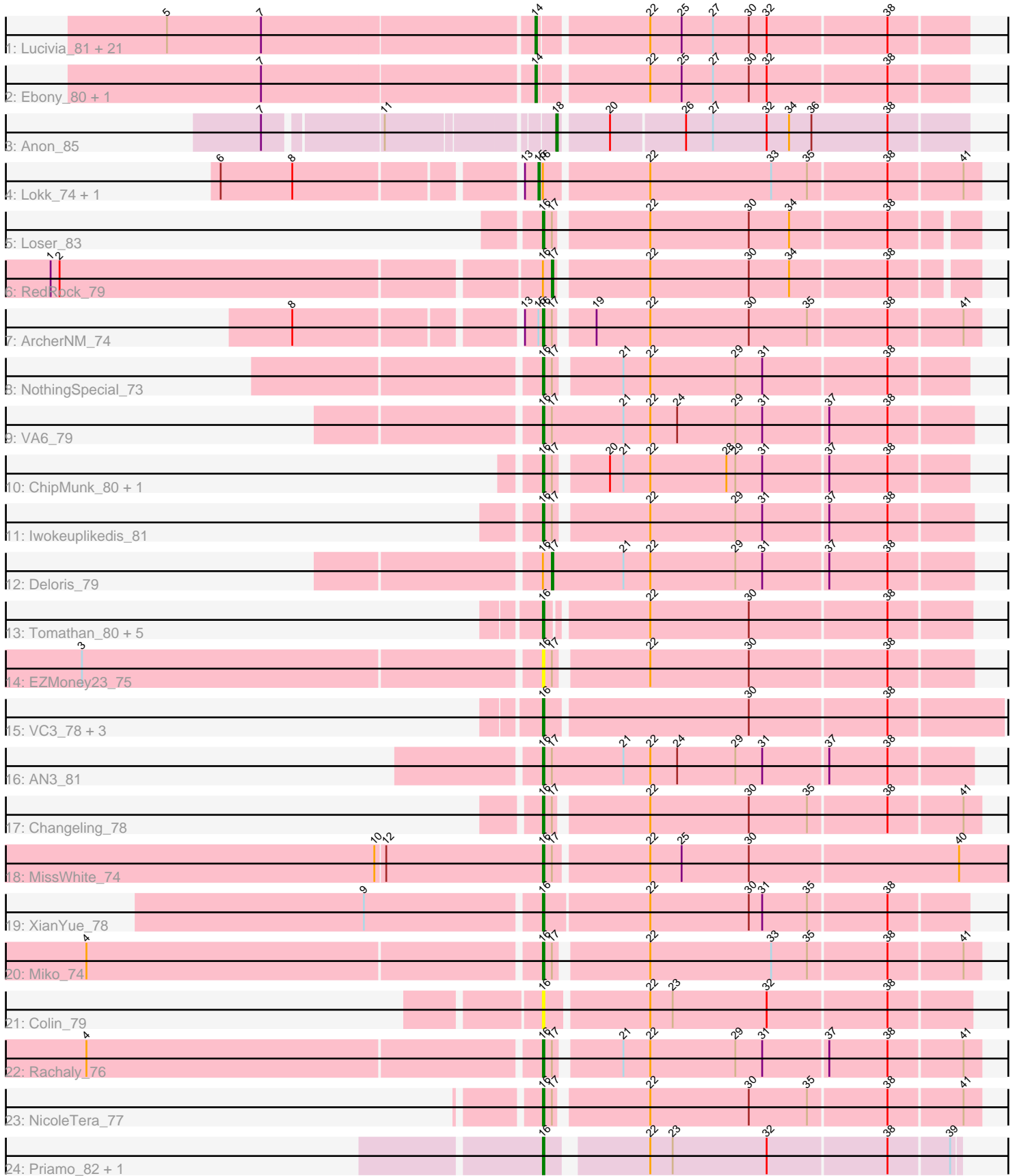


Pham 196571



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 196571 Report

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

Pham number 196571 has 57 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Lucivia\_81, Aneem\_81, Flaverint\_81, Bud\_75, Et2Brutus\_79, Gilberta\_77, Mabel\_80, Joselito\_79, Snape\_80, Munch\_80, Salz\_75, Mulciber\_78, Jabith\_79, TinyTimmy\_79, Hutc2\_76, Petersenfast\_74, Orange\_80, Fibonacci\_79, MaCh\_80, Timothy\_80, Sham4\_76, Insomnia\_79
- Track 2 : Ebony\_80, Bachome\_78
- Track 3 : Anon\_85
- Track 4 : Lokk\_74, BobSwaget\_73
- Track 5 : Loser\_83
- Track 6 : RedRock\_79
- Track 7 : ArcherNM\_74
- Track 8 : NothingSpecial\_73
- Track 9 : VA6\_79
- Track 10 : ChipMunk\_80, EvilGenius\_79
- Track 11 : Iwokeuplikedis\_81
- Track 12 : Deloris\_79
- Track 13 : Tomathan\_80, Kerberos\_80, Travvers\_80, Pomar16\_80, StarStuff\_80, DBQu4n\_80
- Track 14 : EZMoney23\_75
- Track 15 : VC3\_78, AN9\_79, C3\_72, ANI8\_79
- Track 16 : AN3\_81
- Track 17 : Changeling\_78
- Track 18 : MissWhite\_74
- Track 19 : XianYue\_78
- Track 20 : Miko\_74
- Track 21 : Colin\_79
- Track 22 : Rachaly\_76
- Track 23 : NicoleTera\_77
- Track 24 : Priamo\_82, Blinn1\_84

### ***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 25 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AN3\_81, AN9\_79, ANI8\_79, ArcherNM\_74, Blinn1\_84, C3\_72, Changeling\_78, ChipMunk\_80, Colin\_79, DBQu4n\_80, EZMoney23\_75, EvilGenius\_79, Iwokeuplikedis\_81, Kerberos\_80, Loser\_83, Miko\_74, MissWhite\_74, NicoleTera\_77, NothingSpecial\_73, Pomar16\_80, Priamo\_82, Rachaly\_76, StarStuff\_80, Tomathan\_80, Travvers\_80, VA6\_79, VC3\_78, XianYue\_78,

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

- BobSwaget\_73, Deloris\_79, Lokk\_74, RedRock\_79,

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

- Aneem\_81, Anon\_85, Bachome\_78, Bud\_75, Ebony\_80, Et2Brutus\_79, Fibonacci\_79, Flaverint\_81, Gilberta\_77, Hutc2\_76, Insomnia\_79, Jabith\_79, Joselito\_79, Lucivia\_81, MaCh\_80, Mabel\_80, Mulciber\_78, Munch\_80, Orange\_80, Petersenfast\_74, Salz\_75, Sham4\_76, Snape\_80, Timothy\_80, TinyTimmy\_79,

### Summary by start number:

Start 14:

- Found in 24 of 57 ( 42.1% ) of genes in pham
- Manual Annotations of this start: 23 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aneem\_81 (A11), Bachome\_78 (A11), Bud\_75 (A11), Ebony\_80 (A11), Et2Brutus\_79 (A11), Fibonacci\_79 (A11), Flaverint\_81 (A11), Gilberta\_77 (A11), Hutc2\_76 (A11), Insomnia\_79 (A11), Jabith\_79 (A11), Joselito\_79 (A11), Lucivia\_81 (A11), MaCh\_80 (A11), Mabel\_80 (A11), Mulciber\_78 (A11), Munch\_80 (A11), Orange\_80 (A11), Petersenfast\_74 (A11), Salz\_75 (A11), Sham4\_76 (A11), Snape\_80 (A11), Timothy\_80 (A11), TinyTimmy\_79 (A11),

Start 15:

- Found in 3 of 57 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 66.7% of time when present
- Phage (with cluster) where this start called: BobSwaget\_73 (A2), Lokk\_74 (A2),

Start 16:

- Found in 32 of 57 ( 56.1% ) of genes in pham
- Manual Annotations of this start: 25 of 53
- Called 87.5% of time when present
- Phage (with cluster) where this start called: AN3\_81 (A2), AN9\_79 (A2), ANI8\_79 (A2), ArcherNM\_74 (A2), Blinn1\_84 (A6), C3\_72 (A2), Changeling\_78 (A2), ChipMunk\_80 (A2), Colin\_79 (A2), DBQu4n\_80 (A2), EZMoney23\_75 (A2), EvilGenius\_79 (A2), Iwokeuplikedis\_81 (A2), Kerberos\_80 (A2), Loser\_83 (A2), Miko\_74 (A2), MissWhite\_74 (A2), NicoleTera\_77 (A2), NothingSpecial\_73 (A2), Pomar16\_80 (A2), Priamo\_82 (A6), Rachaly\_76 (A2), StarStuff\_80 (A2), Tomathan\_80 (A2), Travvers\_80 (A2), VA6\_79 (A2), VC3\_78 (A2), XianYue\_78 (A2),

Start 17:

- Found in 16 of 57 ( 28.1% ) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Deloris\_79 (A2), RedRock\_79 (A2),

Start 18:

- Found in 1 of 57 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anon\_85 (A15),

### **Summary by clusters:**

There are 4 clusters represented in this pham: A15, A2, A11, A6,

Info for manual annotations of cluster A11:

- Start number 14 was manually annotated 23 times for cluster A11.

Info for manual annotations of cluster A15:

- Start number 18 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster A2:

- Start number 15 was manually annotated 2 times for cluster A2.
- Start number 16 was manually annotated 23 times for cluster A2.
- Start number 17 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A6:

- Start number 16 was manually annotated 2 times for cluster A6.

### **Gene Information:**

Gene: AN3\_81 Start: 45387, Stop: 45106, Start Num: 16

Candidate Starts for AN3\_81:

(Start: 16 @45387 has 25 MA's), (Start: 17 @45381 has 2 MA's), (21, 45333), (22, 45315), (24, 45297), (29, 45258), (31, 45240), (37, 45198), (38, 45159),

Gene: AN9\_79 Start: 45517, Stop: 45221, Start Num: 16

Candidate Starts for AN9\_79:

(Start: 16 @45517 has 25 MA's), (30, 45385), (38, 45295),

Gene: ANI8\_79 Start: 45517, Stop: 45221, Start Num: 16

Candidate Starts for ANI8\_79:

(Start: 16 @45517 has 25 MA's), (30, 45385), (38, 45295),

Gene: Aneem\_81 Start: 45984, Stop: 45709, Start Num: 14

Candidate Starts for Aneem\_81:

(5, 46224), (7, 46161), (Start: 14 @45984 has 23 MA's), (22, 45915), (25, 45894), (27, 45873), (30, 45849), (32, 45837), (38, 45759),

Gene: Anon\_85 Start: 46676, Stop: 46413, Start Num: 18

Candidate Starts for Anon\_85:

(7, 46847), (11, 46775), (Start: 18 @46676 has 1 MA's), (20, 46646), (26, 46598), (27, 46580), (32, 46544), (34, 46529), (36, 46514), (38, 46463),

Gene: ArcherNM\_74 Start: 46349, Stop: 46071, Start Num: 16

Candidate Starts for ArcherNM\_74:

(8, 46499), (13, 46361), (Start: 15 @46352 has 2 MA's), (Start: 16 @46349 has 25 MA's), (Start: 17 @46343 has 2 MA's), (19, 46322), (22, 46286), (30, 46220), (35, 46181), (38, 46130), (41, 46082),

Gene: Bachome\_78 Start: 44864, Stop: 44589, Start Num: 14

Candidate Starts for Bachome\_78:

(7, 45041), (Start: 14 @44864 has 23 MA's), (22, 44795), (25, 44774), (27, 44753), (30, 44729), (32, 44717), (38, 44639),

Gene: Blinn1\_84 Start: 45891, Stop: 45631, Start Num: 16

Candidate Starts for Blinn1\_84:

(Start: 16 @45891 has 25 MA's), (22, 45831), (23, 45816), (32, 45753), (38, 45675), (39, 45636),

Gene: BobSwaget\_73 Start: 44446, Stop: 44162, Start Num: 15

Candidate Starts for BobSwaget\_73:

(6, 44641), (8, 44593), (13, 44455), (Start: 15 @44446 has 2 MA's), (Start: 16 @44443 has 25 MA's), (22, 44377), (33, 44296), (35, 44272), (38, 44221), (41, 44173),

Gene: Bud\_75 Start: 44421, Stop: 44146, Start Num: 14

Candidate Starts for Bud\_75:

(5, 44661), (7, 44598), (Start: 14 @44421 has 23 MA's), (22, 44352), (25, 44331), (27, 44310), (30, 44286), (32, 44274), (38, 44196),

Gene: C3\_72 Start: 45517, Stop: 45221, Start Num: 16

Candidate Starts for C3\_72:

(Start: 16 @45517 has 25 MA's), (30, 45385), (38, 45295),

Gene: Changeling\_78 Start: 46920, Stop: 46642, Start Num: 16

Candidate Starts for Changeling\_78:

(Start: 16 @46920 has 25 MA's), (Start: 17 @46914 has 2 MA's), (22, 46857), (30, 46791), (35, 46752), (38, 46701), (41, 46653),

Gene: ChipMunk\_80 Start: 47961, Stop: 47692, Start Num: 16

Candidate Starts for ChipMunk\_80:

(Start: 16 @47961 has 25 MA's), (Start: 17 @47955 has 2 MA's), (20, 47925), (21, 47916), (22, 47898), (28, 47847), (29, 47841), (31, 47823), (37, 47781), (38, 47742),

Gene: Colin\_79 Start: 47629, Stop: 47354, Start Num: 16

Candidate Starts for Colin\_79:

(Start: 16 @47629 has 25 MA's), (22, 47563), (23, 47548), (32, 47485), (38, 47407),

Gene: DBQu4n\_80 Start: 46541, Stop: 46269, Start Num: 16

Candidate Starts for DBQu4n\_80:

(Start: 16 @46541 has 25 MA's), (22, 46478), (30, 46412), (38, 46322),

Gene: Deloris\_79 Start: 46271, Stop: 45996, Start Num: 17

Candidate Starts for Deloris\_79:

(Start: 16 @46277 has 25 MA's), (Start: 17 @46271 has 2 MA's), (21, 46223), (22, 46205), (29, 46148), (31, 46130), (37, 46088), (38, 46049),

Gene: EZMoney23\_75 Start: 46037, Stop: 45765, Start Num: 16

Candidate Starts for EZMoney23\_75:

(3, 46337), (Start: 16 @46037 has 25 MA's), (Start: 17 @46031 has 2 MA's), (22, 45974), (30, 45908), (38, 45818),

Gene: Ebony\_80 Start: 45555, Stop: 45280, Start Num: 14

Candidate Starts for Ebony\_80:

(7, 45732), (Start: 14 @45555 has 23 MA's), (22, 45486), (25, 45465), (27, 45444), (30, 45420), (32, 45408), (38, 45330),

Gene: Et2Brutus\_79 Start: 45518, Stop: 45243, Start Num: 14

Candidate Starts for Et2Brutus\_79:

(5, 45758), (7, 45695), (Start: 14 @45518 has 23 MA's), (22, 45449), (25, 45428), (27, 45407), (30, 45383), (32, 45371), (38, 45293),

Gene: EvilGenius\_79 Start: 47962, Stop: 47693, Start Num: 16

Candidate Starts for EvilGenius\_79:

(Start: 16 @47962 has 25 MA's), (Start: 17 @47956 has 2 MA's), (20, 47926), (21, 47917), (22, 47899), (28, 47848), (29, 47842), (31, 47824), (37, 47782), (38, 47743),

Gene: Fibonacci\_79 Start: 45524, Stop: 45249, Start Num: 14

Candidate Starts for Fibonacci\_79:

(5, 45764), (7, 45701), (Start: 14 @45524 has 23 MA's), (22, 45455), (25, 45434), (27, 45413), (30, 45389), (32, 45377), (38, 45299),

Gene: Flaverint\_81 Start: 45982, Stop: 45707, Start Num: 14

Candidate Starts for Flaverint\_81:

(5, 46222), (7, 46159), (Start: 14 @45982 has 23 MA's), (22, 45913), (25, 45892), (27, 45871), (30, 45847), (32, 45835), (38, 45757),

Gene: Gilberta\_77 Start: 44858, Stop: 44583, Start Num: 14

Candidate Starts for Gilberta\_77:

(5, 45098), (7, 45035), (Start: 14 @44858 has 23 MA's), (22, 44789), (25, 44768), (27, 44747), (30, 44723), (32, 44711), (38, 44633),

Gene: Hutc2\_76 Start: 44408, Stop: 44133, Start Num: 14

Candidate Starts for Hutc2\_76:

(5, 44648), (7, 44585), (Start: 14 @44408 has 23 MA's), (22, 44339), (25, 44318), (27, 44297), (30, 44273), (32, 44261), (38, 44183),

Gene: Insomnia\_79 Start: 45699, Stop: 45424, Start Num: 14

Candidate Starts for Insomnia\_79:

(5, 45939), (7, 45876), (Start: 14 @45699 has 23 MA's), (22, 45630), (25, 45609), (27, 45588), (30, 45564), (32, 45552), (38, 45474),

Gene: Iwokeuplikedis\_81 Start: 47056, Stop: 46784, Start Num: 16

Candidate Starts for Iwokeuplikedis\_81:

(Start: 16 @47056 has 25 MA's), (Start: 17 @47050 has 2 MA's), (22, 46993), (29, 46936), (31, 46918), (37, 46876), (38, 46837),

Gene: Jabith\_79 Start: 45716, Stop: 45441, Start Num: 14

Candidate Starts for Jabith\_79:

(5, 45956), (7, 45893), (Start: 14 @45716 has 23 MA's), (22, 45647), (25, 45626), (27, 45605), (30, 45581), (32, 45569), (38, 45491),

Gene: Joselito\_79 Start: 45736, Stop: 45461, Start Num: 14

Candidate Starts for Joselito\_79:

(5, 45976), (7, 45913), (Start: 14 @45736 has 23 MA's), (22, 45667), (25, 45646), (27, 45625), (30, 45601), (32, 45589), (38, 45511),

Gene: Kerberos\_80 Start: 46561, Stop: 46289, Start Num: 16

Candidate Starts for Kerberos\_80:

(Start: 16 @46561 has 25 MA's), (22, 46498), (30, 46432), (38, 46342),

Gene: Lokk\_74 Start: 45070, Stop: 44786, Start Num: 15

Candidate Starts for Lokk\_74:

(6, 45265), (8, 45217), (13, 45079), (Start: 15 @45070 has 2 MA's), (Start: 16 @45067 has 25 MA's), (22, 45001), (33, 44920), (35, 44896), (38, 44845), (41, 44797),

Gene: Loser\_83 Start: 47509, Stop: 47237, Start Num: 16

Candidate Starts for Loser\_83:

(Start: 16 @47509 has 25 MA's), (Start: 17 @47503 has 2 MA's), (22, 47446), (30, 47380), (34, 47353), (38, 47290),

Gene: Lucivia\_81 Start: 46015, Stop: 45740, Start Num: 14

Candidate Starts for Lucivia\_81:

(5, 46255), (7, 46192), (Start: 14 @46015 has 23 MA's), (22, 45946), (25, 45925), (27, 45904), (30, 45880), (32, 45868), (38, 45790),

Gene: MaCh\_80 Start: 45979, Stop: 45704, Start Num: 14

Candidate Starts for MaCh\_80:

(5, 46219), (7, 46156), (Start: 14 @45979 has 23 MA's), (22, 45910), (25, 45889), (27, 45868), (30, 45844), (32, 45832), (38, 45754),

Gene: Mabel\_80 Start: 45980, Stop: 45705, Start Num: 14

Candidate Starts for Mabel\_80:

(5, 46220), (7, 46157), (Start: 14 @45980 has 23 MA's), (22, 45911), (25, 45890), (27, 45869), (30, 45845), (32, 45833), (38, 45755),

Gene: Miko\_74 Start: 45841, Stop: 45563, Start Num: 16

Candidate Starts for Miko\_74:

(4, 46138), (Start: 16 @45841 has 25 MA's), (Start: 17 @45835 has 2 MA's), (22, 45778), (33, 45697), (35, 45673), (38, 45622), (41, 45574),

Gene: MissWhite\_74 Start: 43643, Stop: 43320, Start Num: 16

Candidate Starts for MissWhite\_74:

(10, 43754), (12, 43748), (Start: 16 @43643 has 25 MA's), (Start: 17 @43637 has 2 MA's), (22, 43577), (25, 43556), (30, 43511), (40, 43373),

Gene: Mulciber\_78 Start: 45521, Stop: 45246, Start Num: 14

Candidate Starts for Mulciber\_78:

(5, 45761), (7, 45698), (Start: 14 @45521 has 23 MA's), (22, 45452), (25, 45431), (27, 45410), (30, 45386), (32, 45374), (38, 45296),

Gene: Munch\_80 Start: 45984, Stop: 45709, Start Num: 14

Candidate Starts for Munch\_80:

(5, 46224), (7, 46161), (Start: 14 @45984 has 23 MA's), (22, 45915), (25, 45894), (27, 45873), (30, 45849), (32, 45837), (38, 45759),

Gene: NicoleTera\_77 Start: 46504, Stop: 46226, Start Num: 16

Candidate Starts for NicoleTera\_77:

(Start: 16 @46504 has 25 MA's), (Start: 17 @46498 has 2 MA's), (22, 46441), (30, 46375), (35, 46336), (38, 46285), (41, 46237),

Gene: NothingSpecial\_73 Start: 46180, Stop: 45911, Start Num: 16

Candidate Starts for NothingSpecial\_73:

(Start: 16 @46180 has 25 MA's), (Start: 17 @46174 has 2 MA's), (21, 46135), (22, 46117), (29, 46060), (31, 46042), (38, 45961),

Gene: Orange\_80 Start: 45534, Stop: 45259, Start Num: 14

Candidate Starts for Orange\_80:

(5, 45774), (7, 45711), (Start: 14 @45534 has 23 MA's), (22, 45465), (25, 45444), (27, 45423), (30, 45399), (32, 45387), (38, 45309),

Gene: Petersenfast\_74 Start: 44415, Stop: 44140, Start Num: 14

Candidate Starts for Petersenfast\_74:

(5, 44655), (7, 44592), (Start: 14 @44415 has 23 MA's), (22, 44346), (25, 44325), (27, 44304), (30, 44280), (32, 44268), (38, 44190),

Gene: Pomar16\_80 Start: 46631, Stop: 46359, Start Num: 16

Candidate Starts for Pomar16\_80:

(Start: 16 @46631 has 25 MA's), (22, 46568), (30, 46502), (38, 46412),

Gene: Priamo\_82 Start: 45237, Stop: 44977, Start Num: 16

Candidate Starts for Priamo\_82:

(Start: 16 @45237 has 25 MA's), (22, 45177), (23, 45162), (32, 45099), (38, 45021), (39, 44982),

Gene: Rachaly\_76 Start: 45987, Stop: 45709, Start Num: 16

Candidate Starts for Rachaly\_76:

(4, 46284), (Start: 16 @45987 has 25 MA's), (Start: 17 @45981 has 2 MA's), (21, 45942), (22, 45924), (29, 45867), (31, 45849), (37, 45807), (38, 45768), (41, 45720),

Gene: RedRock\_79 Start: 47115, Stop: 46849, Start Num: 17

Candidate Starts for RedRock\_79:

(1, 47439), (2, 47433), (Start: 16 @47121 has 25 MA's), (Start: 17 @47115 has 2 MA's), (22, 47058), (30, 46992), (34, 46965), (38, 46902),

Gene: Salz\_75 Start: 44330, Stop: 44055, Start Num: 14

Candidate Starts for Salz\_75:

(5, 44570), (7, 44507), (Start: 14 @44330 has 23 MA's), (22, 44261), (25, 44240), (27, 44219), (30, 44195), (32, 44183), (38, 44105),

Gene: Sham4\_76 Start: 44413, Stop: 44138, Start Num: 14

Candidate Starts for Sham4\_76:

(5, 44653), (7, 44590), (Start: 14 @44413 has 23 MA's), (22, 44344), (25, 44323), (27, 44302), (30, 44278), (32, 44266), (38, 44188),

Gene: Snape\_80 Start: 45523, Stop: 45248, Start Num: 14

Candidate Starts for Snape\_80:

(5, 45763), (7, 45700), (Start: 14 @45523 has 23 MA's), (22, 45454), (25, 45433), (27, 45412), (30, 45388), (32, 45376), (38, 45298),



Gene: StarStuff\_80 Start: 46596, Stop: 46324, Start Num: 16  
Candidate Starts for StarStuff\_80:  
(Start: 16 @46596 has 25 MA's), (22, 46533), (30, 46467), (38, 46377),

Gene: Timothy\_80 Start: 45500, Stop: 45225, Start Num: 14  
Candidate Starts for Timothy\_80:  
(5, 45740), (7, 45677), (Start: 14 @45500 has 23 MA's), (22, 45431), (25, 45410), (27, 45389), (30, 45365), (32, 45353), (38, 45275),

Gene: TinyTimmy\_79 Start: 45229, Stop: 44954, Start Num: 14  
Candidate Starts for TinyTimmy\_79:  
(5, 45469), (7, 45406), (Start: 14 @45229 has 23 MA's), (22, 45160), (25, 45139), (27, 45118), (30, 45094), (32, 45082), (38, 45004),

Gene: Tomathan\_80 Start: 46674, Stop: 46402, Start Num: 16  
Candidate Starts for Tomathan\_80:  
(Start: 16 @46674 has 25 MA's), (22, 46611), (30, 46545), (38, 46455),

Gene: Travvers\_80 Start: 46591, Stop: 46319, Start Num: 16  
Candidate Starts for Travvers\_80:  
(Start: 16 @46591 has 25 MA's), (22, 46528), (30, 46462), (38, 46372),

Gene: VA6\_79 Start: 46565, Stop: 46284, Start Num: 16  
Candidate Starts for VA6\_79:  
(Start: 16 @46565 has 25 MA's), (Start: 17 @46559 has 2 MA's), (21, 46511), (22, 46493), (24, 46475), (29, 46436), (31, 46418), (37, 46376), (38, 46337),

Gene: VC3\_78 Start: 45517, Stop: 45221, Start Num: 16  
Candidate Starts for VC3\_78:  
(Start: 16 @45517 has 25 MA's), (30, 45385), (38, 45295),

Gene: XianYue\_78 Start: 46882, Stop: 46607, Start Num: 16  
Candidate Starts for XianYue\_78:  
(9, 46996), (Start: 16 @46882 has 25 MA's), (22, 46813), (30, 46747), (31, 46738), (35, 46708), (38, 46657),