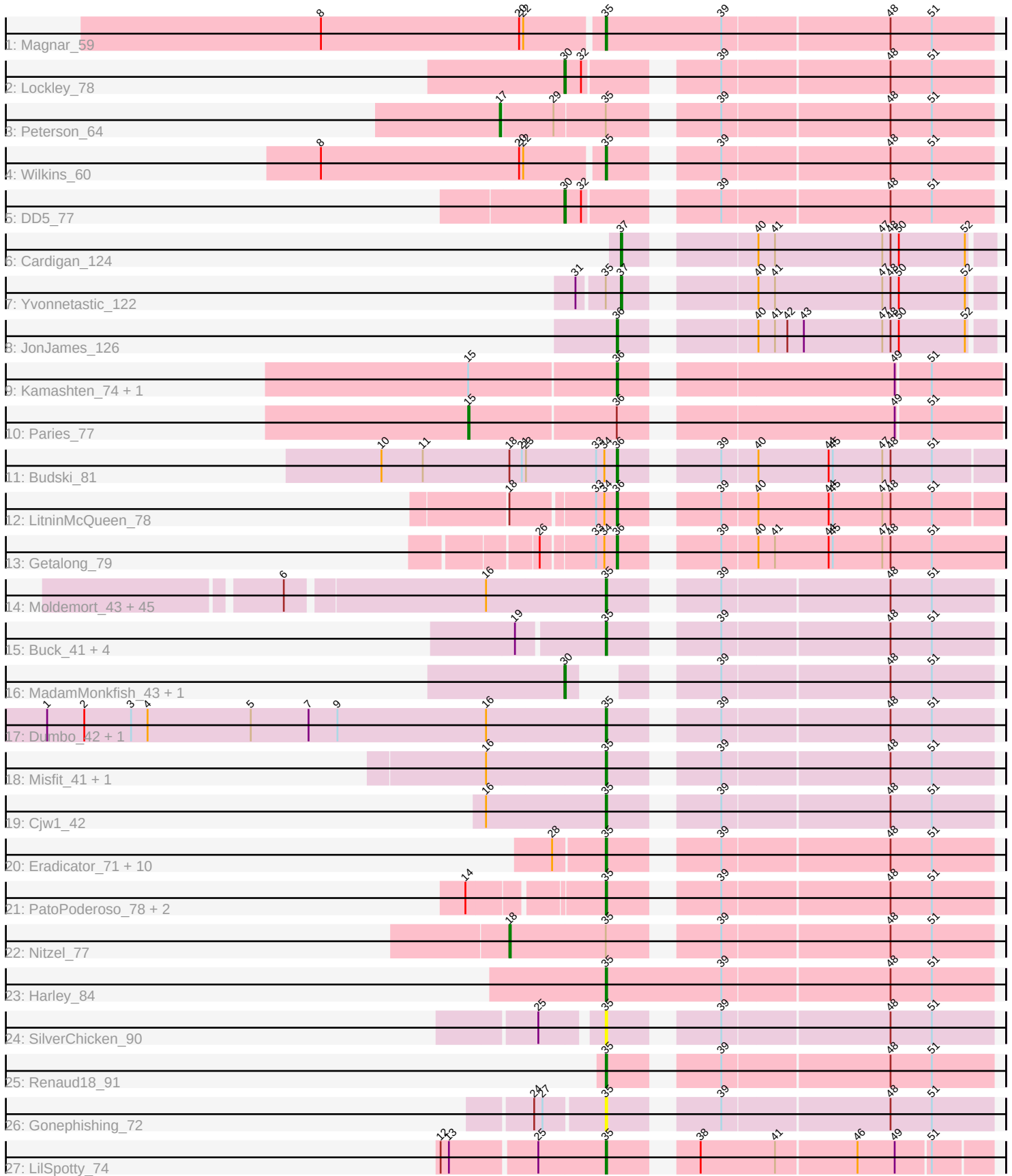


# Pham 328910



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 328910 Report

This analysis was run 09/05/26 on database version 662.

Pham number 328910 has 92 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Magnar\_59
- Track 2 : Lockley\_78
- Track 3 : Peterson\_64
- Track 4 : Wilkins\_60
- Track 5 : DD5\_77
- Track 6 : Cardigan\_124
- Track 7 : Yvonnetastic\_122
- Track 8 : JonJames\_126
- Track 9 : Kamashten\_74, Thing3\_74
- Track 10 : Paries\_77
- Track 11 : Budski\_81
- Track 12 : LitninMcQueen\_78
- Track 13 : Getalong\_79
- Track 14 : Moldemort\_43, BugsBunny\_39, Cactus\_42, Stank\_44, PhatBacter\_41, Barbarian\_40, Elite2014\_41, GooberAzure\_43, Nimrod\_41, Goldilocks\_42, StolenFromERC\_43, Phaux\_40, Murica\_40, Gage\_43, Murphy\_42, NoSleep\_42, Asriel\_40, xkcd\_42, Adnama\_44, Gemini\_44, Palpatine\_41, Lilac\_43, GoldenSpark\_43, Icee\_40, Rakim\_42, AmericanBeauty\_44, Kimchi\_43, ChosenOne\_42, HuffyPuff\_40, Petra64142\_43, Lilpickle\_41, Greep\_42, FireRed\_41, Thresher\_43, Maxxinista\_42, Command613\_42, Sotrice96\_41, LiveLaughBron\_42, Thimble\_42, Stark\_42, RiverMonster\_41, Bask21\_41, Policronamos\_41, Hoonter\_43, Argent26\_43, TBrady12\_43
- Track 15 : Buck\_41, TeamEdward\_43, StormChicken\_42, Rimmer\_41, Youngblood\_42
- Track 16 : MadamMonkfish\_43, Bogg\_43
- Track 17 : Dumbo\_42, Easy2Say\_43
- Track 18 : Misfit\_41, Terminus\_41
- Track 19 : Cjw1\_42
- Track 20 : Eradicator\_71, KashFlow\_69, Nala\_41, Cali\_16, MPhalcon\_40, Sprinklers\_15, MISSy\_40, BadAgartude\_16, Becksu\_41, Tchotchke\_75, SuperGrey\_81
- Track 21 : PatoPoderoso\_78, Corium\_78, KingJulian\_84
- Track 22 : Nitzel\_77
- Track 23 : Harley\_84
- Track 24 : SilverChicken\_90
- Track 25 : Renaud18\_91
- Track 26 : Gonephishing\_72

- Track 27 : LilSpotty\_74

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

The start number called the most often in the published annotations is 35, it was called in 66 of the 80 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adnama\_44, AmericanBeauty\_44, Argent26\_43, Asriel\_40, BadAgartude\_16, Barbarian\_40, Bask21\_41, Becksu\_41, Buck\_41, BugsBunny\_39, Cactus\_42, Cali\_16, ChosenOne\_42, Cjw1\_42, Command613\_42, Corium\_78, Dumbo\_42, Easy2Say\_43, Elite2014\_41, Eradicator\_71, FireRed\_41, Gage\_43, Gemini\_44, GoldenSpark\_43, Goldilocks\_42, Gonephishing\_72, GooberAzure\_43, Greep\_42, Harley\_84, Hoonter\_43, HufflyPuff\_40, Icee\_40, KashFlow\_69, Kimchi\_43, KingJulian\_84, LilSpotty\_74, Lilac\_43, Lilpickle\_41, Livelaughbron\_42, MISSy\_40, MPfalcon\_40, Magnar\_59, Maxxinista\_42, Misfit\_41, Moldemort\_43, Murica\_40, Murphy\_42, Nala\_41, Nimrod\_41, NoSleep\_42, Palpatine\_41, PatoPoderoso\_78, Petra64142\_43, PhatBacter\_41, Phaux\_40, Policronamos\_41, Rakim\_42, Renaud18\_91, Rimmer\_41, RiverMonster\_41, SilverChicken\_90, Sotrice96\_41, Sprinklers\_15, Stank\_44, Stark\_42, StolenFromERC\_43, StormChicken\_42, SuperGrey\_81, TBrady12\_43, Tchotchke\_75, TeamEdward\_43, Terminus\_41, Thimble\_42, Thresher\_43, Wilkins\_60, Youngblood\_42, xkcd\_42,

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

- Nitzel\_77, Peterson\_64, Yvonnetastic\_122,

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

- Bogg\_43, Budski\_81, Cardigan\_124, DD5\_77, Getalong\_79, JonJames\_126, Kamashten\_74, LitninMcQueen\_78, Lockley\_78, MadamMonkfish\_43, Paries\_77, Thing3\_74,

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

Start 15:

- Found in 3 of 92 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Paries\_77 (DE1),

Start 17:

- Found in 1 of 92 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Peterson\_64 (A1),

Start 18:

- Found in 3 of 92 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Nitzel\_77 (F1),

Start 30:

- Found in 4 of 92 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 3 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bogg\_43 (E), DD5\_77 (A1), Lockley\_78 (A1), MadamMonkfish\_43 (E),

Start 35:

- Found in 80 of 92 ( 87.0% ) of genes in pham
- Manual Annotations of this start: 66 of 80
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Adnama\_44 (E), AmericanBeauty\_44 (E), Argent26\_43 (E), Asriel\_40 (E), BadAgartude\_16 (C1), Barbarian\_40 (E), Bask21\_41 (E), Becksu\_41 (E), Buck\_41 (E), BugsBunny\_39 (E), Cactus\_42 (E), Cali\_16 (C1), ChosenOne\_42 (E), Cjw1\_42 (E), Command613\_42 (E), Corium\_78 (F1), Dumbo\_42 (E), Easy2Say\_43 (E), Elite2014\_41 (E), Eradicator\_71 (F1), FireRed\_41 (E), Gage\_43 (E), Gemini\_44 (E), GoldenSpark\_43 (E), Goldilocks\_42 (E), Gonephishing\_72 (J), GooberAzure\_43 (E), Greep\_42 (E), Harley\_84 (F1), Hoonter\_43 (E), HuffyPuff\_40 (E), Icee\_40 (E), KashFlow\_69 (J), Kimchi\_43 (E), KingJulian\_84 (F1), LilSpotty\_74 (singleton), Lilac\_43 (E), Lilpickle\_41 (E), Liveloughbron\_42 (E), MISSy\_40 (E), MPhalcon\_40 (E), Magnar\_59 (A1), Maxxinista\_42 (E), Misfit\_41 (E), Moldemort\_43 (E), Murica\_40 (E), Murphy\_42 (E), Nala\_41 (E), Nimrod\_41 (E), NoSleep\_42 (E), Palpatine\_41 (E), PatoPoderoso\_78 (F1), Petra64142\_43 (E), PhatBacter\_41 (E), Phaux\_40 (E), Policronamos\_41 (E), Rakim\_42 (E), Renaud18\_91 (F4), Rimmer\_41 (E), RiverMonster\_41 (E), SilverChicken\_90 (F2), Sotrice96\_41 (E), Sprinklers\_15 (C1), Stank\_44 (E), Stark\_42 (E), StolenFromERC\_43 (E), StormChicken\_42 (E), SuperGrey\_81 (F1), TBrady12\_43 (E), Tchotchke\_75 (F1), TeamEdward\_43 (E), Terminus\_41 (E), Thimble\_42 (E), Thresher\_43 (E), Wilkins\_60 (A1), Youngblood\_42 (E), xkcd\_42 (E),

Start 36:

- Found in 7 of 92 ( 7.6% ) of genes in pham
- Manual Annotations of this start: 6 of 80
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Budski\_81 (DN), Getalong\_79 (DN1), JonJames\_126 (DD), Kamashten\_74 (DE1), LitninMcQueen\_78 (DN1), Thing3\_74 (DE1),

Start 37:

- Found in 2 of 92 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 2 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan\_124 (DD), Yvonnetastic\_122 (DD),

**Summary by clusters:**

There are 12 clusters represented in this pham: DN, F1, F2, E, DE1, DD, J, singleton, A1, DN1, F4, C1,

Info for manual annotations of cluster A1:

- Start number 17 was manually annotated 1 time for cluster A1.

- Start number 30 was manually annotated 2 times for cluster A1.
- Start number 35 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster C1:

- Start number 35 was manually annotated 3 times for cluster C1.

Info for manual annotations of cluster DD:

- Start number 36 was manually annotated 1 time for cluster DD.
- Start number 37 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DE1:

- Start number 15 was manually annotated 1 time for cluster DE1.
- Start number 36 was manually annotated 2 times for cluster DE1.

Info for manual annotations of cluster DN:

- Start number 36 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 36 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster E:

- Start number 30 was manually annotated 1 time for cluster E.
- Start number 35 was manually annotated 54 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 18 was manually annotated 1 time for cluster F1.
- Start number 35 was manually annotated 4 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 35 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:

- Start number 35 was manually annotated 1 time for cluster J.

### **Gene Information:**

Gene: Adnama\_44 Start: 35427, Stop: 35173, Start Num: 35

Candidate Starts for Adnama\_44:

(6, 35649), (16, 35511), (Start: 35 @35427 has 66 MA's), (39, 35364), (48, 35247), (51, 35217),

Gene: AmericanBeauty\_44 Start: 35272, Stop: 35018, Start Num: 35

Candidate Starts for AmericanBeauty\_44:

(6, 35494), (16, 35356), (Start: 35 @35272 has 66 MA's), (39, 35209), (48, 35092), (51, 35062),

Gene: Argent26\_43 Start: 34910, Stop: 34656, Start Num: 35

Candidate Starts for Argent26\_43:

(6, 35132), (16, 34994), (Start: 35 @34910 has 66 MA's), (39, 34847), (48, 34730), (51, 34700),

Gene: Asriel\_40 Start: 33764, Stop: 33510, Start Num: 35

Candidate Starts for Asriel\_40:

(6, 33986), (16, 33848), (Start: 35 @33764 has 66 MA's), (39, 33701), (48, 33584), (51, 33554),

Gene: BadAgartude\_16 Start: 5263, Stop: 5517, Start Num: 35

Candidate Starts for BadAgartude\_16:

(28, 5227), (Start: 35 @5263 has 66 MA's), (39, 5326), (48, 5443), (51, 5473),

Gene: Barbarian\_40 Start: 33764, Stop: 33510, Start Num: 35

Candidate Starts for Barbarian\_40:

(6, 33986), (16, 33848), (Start: 35 @33764 has 66 MA's), (39, 33701), (48, 33584), (51, 33554),

Gene: Bask21\_41 Start: 34098, Stop: 33844, Start Num: 35

Candidate Starts for Bask21\_41:

(6, 34320), (16, 34182), (Start: 35 @34098 has 66 MA's), (39, 34035), (48, 33918), (51, 33888),

Gene: Becksu\_41 Start: 35086, Stop: 34832, Start Num: 35

Candidate Starts for Becksu\_41:

(28, 35122), (Start: 35 @35086 has 66 MA's), (39, 35023), (48, 34906), (51, 34876),

Gene: Bogg\_43 Start: 34700, Stop: 34446, Start Num: 30

Candidate Starts for Bogg\_43:

(Start: 30 @34700 has 3 MA's), (39, 34637), (48, 34520), (51, 34490),

Gene: Buck\_41 Start: 34956, Stop: 34702, Start Num: 35

Candidate Starts for Buck\_41:

(19, 35016), (Start: 35 @34956 has 66 MA's), (39, 34893), (48, 34776), (51, 34746),

Gene: Budski\_81 Start: 45788, Stop: 46042, Start Num: 36

Candidate Starts for Budski\_81:

(10, 45617), (11, 45647), (Start: 18 @45710 has 1 MA's), (21, 45719), (23, 45722), (33, 45773), (34, 45779), (Start: 36 @45788 has 6 MA's), (39, 45842), (40, 45866), (44, 45917), (45, 45920), (47, 45956), (48, 45962), (51, 45992),

Gene: BugsBunny\_39 Start: 34492, Stop: 34238, Start Num: 35

Candidate Starts for BugsBunny\_39:

(6, 34714), (16, 34576), (Start: 35 @34492 has 66 MA's), (39, 34429), (48, 34312), (51, 34282),

Gene: Cactus\_42 Start: 34131, Stop: 33877, Start Num: 35

Candidate Starts for Cactus\_42:

(6, 34353), (16, 34215), (Start: 35 @34131 has 66 MA's), (39, 34068), (48, 33951), (51, 33921),

Gene: Cali\_16 Start: 6239, Stop: 6493, Start Num: 35

Candidate Starts for Cali\_16:

(28, 6203), (Start: 35 @6239 has 66 MA's), (39, 6302), (48, 6419), (51, 6449),

Gene: Cardigan\_124 Start: 72612, Stop: 72854, Start Num: 37

Candidate Starts for Cardigan\_124:

(Start: 37 @72612 has 2 MA's), (40, 72687), (41, 72699), (47, 72777), (48, 72783), (50, 72789), (52, 72837),

Gene: ChosenOne\_42 Start: 34225, Stop: 33971, Start Num: 35

Candidate Starts for ChosenOne\_42:

(6, 34447), (16, 34309), (Start: 35 @34225 has 66 MA's), (39, 34162), (48, 34045), (51, 34015),

Gene: Cjw1\_42 Start: 35902, Stop: 35648, Start Num: 35

Candidate Starts for Cjw1\_42:

(16, 35986), (Start: 35 @35902 has 66 MA's), (39, 35839), (48, 35722), (51, 35692),

Gene: Command613\_42 Start: 35170, Stop: 34916, Start Num: 35

Candidate Starts for Command613\_42:

(6, 35392), (16, 35254), (Start: 35 @35170 has 66 MA's), (39, 35107), (48, 34990), (51, 34960),

Gene: Corium\_78 Start: 49985, Stop: 50239, Start Num: 35

Candidate Starts for Corium\_78:

(14, 49895), (Start: 35 @49985 has 66 MA's), (39, 50048), (48, 50165), (51, 50195),

Gene: DD5\_77 Start: 47867, Stop: 47586, Start Num: 30

Candidate Starts for DD5\_77:

(Start: 30 @47867 has 3 MA's), (32, 47855), (39, 47777), (48, 47660), (51, 47630),

Gene: Dumbo\_42 Start: 34654, Stop: 34400, Start Num: 35

Candidate Starts for Dumbo\_42:

(1, 35056), (2, 35029), (3, 34996), (4, 34984), (5, 34909), (7, 34867), (9, 34846), (16, 34738), (Start: 35 @34654 has 66 MA's), (39, 34591), (48, 34474), (51, 34444),

Gene: Easy2Say\_43 Start: 36198, Stop: 35944, Start Num: 35

Candidate Starts for Easy2Say\_43:

(1, 36600), (2, 36573), (3, 36540), (4, 36528), (5, 36453), (7, 36411), (9, 36390), (16, 36282), (Start: 35 @36198 has 66 MA's), (39, 36135), (48, 36018), (51, 35988),

Gene: Elite2014\_41 Start: 34224, Stop: 33970, Start Num: 35

Candidate Starts for Elite2014\_41:

(6, 34446), (16, 34308), (Start: 35 @34224 has 66 MA's), (39, 34161), (48, 34044), (51, 34014),

Gene: Eradicator\_71 Start: 46645, Stop: 46899, Start Num: 35

Candidate Starts for Eradicator\_71:

(28, 46609), (Start: 35 @46645 has 66 MA's), (39, 46708), (48, 46825), (51, 46855),

Gene: FireRed\_41 Start: 34931, Stop: 34677, Start Num: 35

Candidate Starts for FireRed\_41:

(6, 35153), (16, 35015), (Start: 35 @34931 has 66 MA's), (39, 34868), (48, 34751), (51, 34721),

Gene: Gage\_43 Start: 34910, Stop: 34656, Start Num: 35

Candidate Starts for Gage\_43:

(6, 35132), (16, 34994), (Start: 35 @34910 has 66 MA's), (39, 34847), (48, 34730), (51, 34700),

Gene: Gemini\_44 Start: 35427, Stop: 35173, Start Num: 35

Candidate Starts for Gemini\_44:

(6, 35649), (16, 35511), (Start: 35 @35427 has 66 MA's), (39, 35364), (48, 35247), (51, 35217),

Gene: Getalong\_79 Start: 46153, Stop: 46410, Start Num: 36

Candidate Starts for Getalong\_79:

(26, 46102), (33, 46138), (34, 46144), (Start: 36 @46153 has 6 MA's), (39, 46207), (40, 46231), (41, 46243), (44, 46282), (45, 46285), (47, 46321), (48, 46327), (51, 46357),

Gene: GoldenSpark\_43 Start: 34910, Stop: 34656, Start Num: 35

Candidate Starts for GoldenSpark\_43:

(6, 35132), (16, 34994), (Start: 35 @34910 has 66 MA's), (39, 34847), (48, 34730), (51, 34700),

Gene: Goldilocks\_42 Start: 34412, Stop: 34158, Start Num: 35

Candidate Starts for Goldilocks\_42:

(6, 34634), (16, 34496), (Start: 35 @34412 has 66 MA's), (39, 34349), (48, 34232), (51, 34202),

Gene: Gonephishing\_72 Start: 47507, Stop: 47253, Start Num: 35

Candidate Starts for Gonephishing\_72:

(24, 47555), (27, 47549), (Start: 35 @47507 has 66 MA's), (39, 47444), (48, 47327), (51, 47297),

Gene: GooberAzure\_43 Start: 34910, Stop: 34656, Start Num: 35

Candidate Starts for GooberAzure\_43:

(6, 35132), (16, 34994), (Start: 35 @34910 has 66 MA's), (39, 34847), (48, 34730), (51, 34700),

Gene: Greep\_42 Start: 35223, Stop: 34969, Start Num: 35

Candidate Starts for Greep\_42:

(6, 35445), (16, 35307), (Start: 35 @35223 has 66 MA's), (39, 35160), (48, 35043), (51, 35013),

Gene: Harley\_84 Start: 49403, Stop: 49678, Start Num: 35

Candidate Starts for Harley\_84:

(Start: 35 @49403 has 66 MA's), (39, 49487), (48, 49604), (51, 49634),

Gene: Hoonter\_43 Start: 34910, Stop: 34656, Start Num: 35

Candidate Starts for Hoonter\_43:

(6, 35132), (16, 34994), (Start: 35 @34910 has 66 MA's), (39, 34847), (48, 34730), (51, 34700),

Gene: HuffyPuff\_40 Start: 34887, Stop: 34633, Start Num: 35

Candidate Starts for HuffyPuff\_40:

(6, 35109), (16, 34971), (Start: 35 @34887 has 66 MA's), (39, 34824), (48, 34707), (51, 34677),

Gene: Icee\_40 Start: 34578, Stop: 34324, Start Num: 35

Candidate Starts for Icee\_40:

(6, 34800), (16, 34662), (Start: 35 @34578 has 66 MA's), (39, 34515), (48, 34398), (51, 34368),

Gene: JonJames\_126 Start: 73547, Stop: 73792, Start Num: 36

Candidate Starts for JonJames\_126:

(Start: 36 @73547 has 6 MA's), (40, 73625), (41, 73637), (42, 73646), (43, 73658), (47, 73715), (48, 73721), (50, 73727), (52, 73775),

Gene: Kamashten\_74 Start: 54860, Stop: 55111, Start Num: 36

Candidate Starts for Kamashten\_74:

(Start: 15 @54755 has 1 MA's), (Start: 36 @54860 has 6 MA's), (49, 55037), (51, 55061),

Gene: KashFlow\_69 Start: 46152, Stop: 45898, Start Num: 35

Candidate Starts for KashFlow\_69:

(28, 46188), (Start: 35 @46152 has 66 MA's), (39, 46089), (48, 45972), (51, 45942),

Gene: Kimchi\_43 Start: 34913, Stop: 34659, Start Num: 35

Candidate Starts for Kimchi\_43:

(6, 35135), (16, 34997), (Start: 35 @34913 has 66 MA's), (39, 34850), (48, 34733), (51, 34703),

Gene: KingJulian\_84 Start: 49985, Stop: 50239, Start Num: 35

Candidate Starts for KingJulian\_84:



(14, 49895), (Start: 35 @49985 has 66 MA's), (39, 50048), (48, 50165), (51, 50195),

Gene: LilSpotty\_74 Start: 43948, Stop: 44199, Start Num: 35

Candidate Starts for LilSpotty\_74:

(12, 43834), (13, 43840), (25, 43900), (Start: 35 @43948 has 66 MA's), (38, 43996), (41, 44050), (46, 44107), (49, 44134), (51, 44158),

Gene: Lilac\_43 Start: 34400, Stop: 34146, Start Num: 35

Candidate Starts for Lilac\_43:

(6, 34622), (16, 34484), (Start: 35 @34400 has 66 MA's), (39, 34337), (48, 34220), (51, 34190),

Gene: Lilpickle\_41 Start: 34224, Stop: 33970, Start Num: 35

Candidate Starts for Lilpickle\_41:

(6, 34446), (16, 34308), (Start: 35 @34224 has 66 MA's), (39, 34161), (48, 34044), (51, 34014),

Gene: LitninMcQueen\_78 Start: 44663, Stop: 44917, Start Num: 36

Candidate Starts for LitninMcQueen\_78:

(Start: 18 @44591 has 1 MA's), (33, 44648), (34, 44654), (Start: 36 @44663 has 6 MA's), (39, 44717), (40, 44741), (44, 44792), (45, 44795), (47, 44831), (48, 44837), (51, 44867),

Gene: Liveloughbron\_42 Start: 35017, Stop: 34763, Start Num: 35

Candidate Starts for Liveloughbron\_42:

(6, 35239), (16, 35101), (Start: 35 @35017 has 66 MA's), (39, 34954), (48, 34837), (51, 34807),

Gene: Lockley\_78 Start: 47464, Stop: 47183, Start Num: 30

Candidate Starts for Lockley\_78:

(Start: 30 @47464 has 3 MA's), (32, 47452), (39, 47374), (48, 47257), (51, 47227),

Gene: MISSy\_40 Start: 34416, Stop: 34162, Start Num: 35

Candidate Starts for MISSy\_40:

(28, 34452), (Start: 35 @34416 has 66 MA's), (39, 34353), (48, 34236), (51, 34206),

Gene: MPhalcon\_40 Start: 34409, Stop: 34155, Start Num: 35

Candidate Starts for MPhalcon\_40:

(28, 34445), (Start: 35 @34409 has 66 MA's), (39, 34346), (48, 34229), (51, 34199),

Gene: MadamMonkfish\_43 Start: 34798, Stop: 34544, Start Num: 30

Candidate Starts for MadamMonkfish\_43:

(Start: 30 @34798 has 3 MA's), (39, 34735), (48, 34618), (51, 34588),

Gene: Magnar\_59 Start: 40777, Stop: 40502, Start Num: 35

Candidate Starts for Magnar\_59:

(8, 40978), (20, 40834), (22, 40831), (Start: 35 @40777 has 66 MA's), (39, 40693), (48, 40576), (51, 40546),

Gene: Maxxinista\_42 Start: 34370, Stop: 34116, Start Num: 35

Candidate Starts for Maxxinista\_42:

(6, 34592), (16, 34454), (Start: 35 @34370 has 66 MA's), (39, 34307), (48, 34190), (51, 34160),

Gene: Misfit\_41 Start: 34990, Stop: 34736, Start Num: 35

Candidate Starts for Misfit\_41:

(16, 35074), (Start: 35 @34990 has 66 MA's), (39, 34927), (48, 34810), (51, 34780),

Gene: Moldemort\_43 Start: 35027, Stop: 34773, Start Num: 35

Candidate Starts for Moldemort\_43:

(6, 35249), (16, 35111), (Start: 35 @35027 has 66 MA's), (39, 34964), (48, 34847), (51, 34817),

Gene: Murica\_40 Start: 34887, Stop: 34633, Start Num: 35

Candidate Starts for Murica\_40:

(6, 35109), (16, 34971), (Start: 35 @34887 has 66 MA's), (39, 34824), (48, 34707), (51, 34677),

Gene: Murphy\_42 Start: 34882, Stop: 34628, Start Num: 35

Candidate Starts for Murphy\_42:

(6, 35104), (16, 34966), (Start: 35 @34882 has 66 MA's), (39, 34819), (48, 34702), (51, 34672),

Gene: Nala\_41 Start: 34921, Stop: 34667, Start Num: 35

Candidate Starts for Nala\_41:

(28, 34957), (Start: 35 @34921 has 66 MA's), (39, 34858), (48, 34741), (51, 34711),

Gene: Nimrod\_41 Start: 35145, Stop: 34891, Start Num: 35

Candidate Starts for Nimrod\_41:

(6, 35367), (16, 35229), (Start: 35 @35145 has 66 MA's), (39, 35082), (48, 34965), (51, 34935),

Gene: Nitzel\_77 Start: 46511, Stop: 46834, Start Num: 18

Candidate Starts for Nitzel\_77:

(Start: 18 @46511 has 1 MA's), (Start: 35 @46580 has 66 MA's), (39, 46643), (48, 46760), (51, 46790),

Gene: NoSleep\_42 Start: 34642, Stop: 34388, Start Num: 35

Candidate Starts for NoSleep\_42:

(6, 34864), (16, 34726), (Start: 35 @34642 has 66 MA's), (39, 34579), (48, 34462), (51, 34432),

Gene: Palpatine\_41 Start: 34917, Stop: 34663, Start Num: 35

Candidate Starts for Palpatine\_41:

(6, 35139), (16, 35001), (Start: 35 @34917 has 66 MA's), (39, 34854), (48, 34737), (51, 34707),

Gene: Paries\_77 Start: 55773, Stop: 56129, Start Num: 15

Candidate Starts for Paries\_77:

(Start: 15 @55773 has 1 MA's), (Start: 36 @55878 has 6 MA's), (49, 56055), (51, 56079),

Gene: PatoPoderoso\_78 Start: 49985, Stop: 50239, Start Num: 35

Candidate Starts for PatoPoderoso\_78:

(14, 49895), (Start: 35 @49985 has 66 MA's), (39, 50048), (48, 50165), (51, 50195),

Gene: Peterson\_64 Start: 42900, Stop: 42574, Start Num: 17

Candidate Starts for Peterson\_64:

(Start: 17 @42900 has 1 MA's), (29, 42864), (Start: 35 @42828 has 66 MA's), (39, 42765), (48, 42648), (51, 42618),

Gene: Petra64142\_43 Start: 35381, Stop: 35127, Start Num: 35

Candidate Starts for Petra64142\_43:

(6, 35603), (16, 35465), (Start: 35 @35381 has 66 MA's), (39, 35318), (48, 35201), (51, 35171),

Gene: PhatBacter\_41 Start: 34931, Stop: 34677, Start Num: 35

Candidate Starts for PhatBacter\_41:

(6, 35153), (16, 35015), (Start: 35 @34931 has 66 MA's), (39, 34868), (48, 34751), (51, 34721),

Gene: Phaux\_40 Start: 34929, Stop: 34675, Start Num: 35

Candidate Starts for Phaux\_40:

(6, 35151), (16, 35013), (Start: 35 @34929 has 66 MA's), (39, 34866), (48, 34749), (51, 34719),

Gene: Policronamos\_41 Start: 34929, Stop: 34675, Start Num: 35

Candidate Starts for Policronamos\_41:

(6, 35151), (16, 35013), (Start: 35 @34929 has 66 MA's), (39, 34866), (48, 34749), (51, 34719),

Gene: Rakim\_42 Start: 35026, Stop: 34772, Start Num: 35

Candidate Starts for Rakim\_42:

(6, 35248), (16, 35110), (Start: 35 @35026 has 66 MA's), (39, 34963), (48, 34846), (51, 34816),

Gene: Renaud18\_91 Start: 50192, Stop: 50446, Start Num: 35

Candidate Starts for Renaud18\_91:

(Start: 35 @50192 has 66 MA's), (39, 50255), (48, 50372), (51, 50402),

Gene: Rimmer\_41 Start: 34566, Stop: 34312, Start Num: 35

Candidate Starts for Rimmer\_41:

(19, 34626), (Start: 35 @34566 has 66 MA's), (39, 34503), (48, 34386), (51, 34356),

Gene: RiverMonster\_41 Start: 34658, Stop: 34404, Start Num: 35

Candidate Starts for RiverMonster\_41:

(6, 34880), (16, 34742), (Start: 35 @34658 has 66 MA's), (39, 34595), (48, 34478), (51, 34448),

Gene: SilverChicken\_90 Start: 49456, Stop: 49710, Start Num: 35

Candidate Starts for SilverChicken\_90:

(25, 49417), (Start: 35 @49456 has 66 MA's), (39, 49519), (48, 49636), (51, 49666),

Gene: Sotrice96\_41 Start: 34874, Stop: 34620, Start Num: 35

Candidate Starts for Sotrice96\_41:

(6, 35096), (16, 34958), (Start: 35 @34874 has 66 MA's), (39, 34811), (48, 34694), (51, 34664),

Gene: Sprinklers\_15 Start: 4665, Stop: 4919, Start Num: 35

Candidate Starts for Sprinklers\_15:

(28, 4629), (Start: 35 @4665 has 66 MA's), (39, 4728), (48, 4845), (51, 4875),

Gene: Stank\_44 Start: 35426, Stop: 35172, Start Num: 35

Candidate Starts for Stank\_44:

(6, 35648), (16, 35510), (Start: 35 @35426 has 66 MA's), (39, 35363), (48, 35246), (51, 35216),

Gene: Stark\_42 Start: 34661, Stop: 34407, Start Num: 35

Candidate Starts for Stark\_42:

(6, 34883), (16, 34745), (Start: 35 @34661 has 66 MA's), (39, 34598), (48, 34481), (51, 34451),

Gene: StolenFromERC\_43 Start: 34910, Stop: 34656, Start Num: 35

Candidate Starts for StolenFromERC\_43:

(6, 35132), (16, 34994), (Start: 35 @34910 has 66 MA's), (39, 34847), (48, 34730), (51, 34700),

Gene: StormChicken\_42 Start: 35174, Stop: 34920, Start Num: 35

Candidate Starts for StormChicken\_42:

(19, 35234), (Start: 35 @35174 has 66 MA's), (39, 35111), (48, 34994), (51, 34964),

Gene: SuperGrey\_81 Start: 50776, Stop: 51030, Start Num: 35

Candidate Starts for SuperGrey\_81:

(28, 50740), (Start: 35 @50776 has 66 MA's), (39, 50839), (48, 50956), (51, 50986),

Gene: TBrady12\_43 Start: 34910, Stop: 34656, Start Num: 35

Candidate Starts for TBrady12\_43:

(6, 35132), (16, 34994), (Start: 35 @34910 has 66 MA's), (39, 34847), (48, 34730), (51, 34700),

Gene: Tchotchke\_75 Start: 47461, Stop: 47715, Start Num: 35

Candidate Starts for Tchotchke\_75:

(28, 47425), (Start: 35 @47461 has 66 MA's), (39, 47524), (48, 47641), (51, 47671),

Gene: TeamEdward\_43 Start: 35171, Stop: 34917, Start Num: 35

Candidate Starts for TeamEdward\_43:

(19, 35231), (Start: 35 @35171 has 66 MA's), (39, 35108), (48, 34991), (51, 34961),

Gene: Terminus\_41 Start: 34990, Stop: 34736, Start Num: 35

Candidate Starts for Terminus\_41:

(16, 35074), (Start: 35 @34990 has 66 MA's), (39, 34927), (48, 34810), (51, 34780),

Gene: Thimble\_42 Start: 34092, Stop: 33838, Start Num: 35

Candidate Starts for Thimble\_42:

(6, 34314), (16, 34176), (Start: 35 @34092 has 66 MA's), (39, 34029), (48, 33912), (51, 33882),

Gene: Thing3\_74 Start: 54860, Stop: 55111, Start Num: 36

Candidate Starts for Thing3\_74:

(Start: 15 @54755 has 1 MA's), (Start: 36 @54860 has 6 MA's), (49, 55037), (51, 55061),

Gene: Thresher\_43 Start: 35896, Stop: 35642, Start Num: 35

Candidate Starts for Thresher\_43:

(6, 36118), (16, 35980), (Start: 35 @35896 has 66 MA's), (39, 35833), (48, 35716), (51, 35686),

Gene: Wilkins\_60 Start: 39962, Stop: 39708, Start Num: 35

Candidate Starts for Wilkins\_60:

(8, 40163), (20, 40019), (22, 40016), (Start: 35 @39962 has 66 MA's), (39, 39899), (48, 39782), (51, 39752),

Gene: Youngblood\_42 Start: 35177, Stop: 34923, Start Num: 35

Candidate Starts for Youngblood\_42:

(19, 35237), (Start: 35 @35177 has 66 MA's), (39, 35114), (48, 34997), (51, 34967),

Gene: Yvonnetastic\_122 Start: 69842, Stop: 70084, Start Num: 37

Candidate Starts for Yvonnetastic\_122:

(31, 69818), (Start: 35 @69836 has 66 MA's), (Start: 37 @69842 has 2 MA's), (40, 69917), (41, 69929), (47, 70007), (48, 70013), (50, 70019), (52, 70067),

Gene: xkcd\_42 Start: 35072, Stop: 34818, Start Num: 35

Candidate Starts for xkcd\_42:

(6, 35294), (16, 35156), (Start: 35 @35072 has 66 MA's), (39, 35009), (48, 34892), (51, 34862),