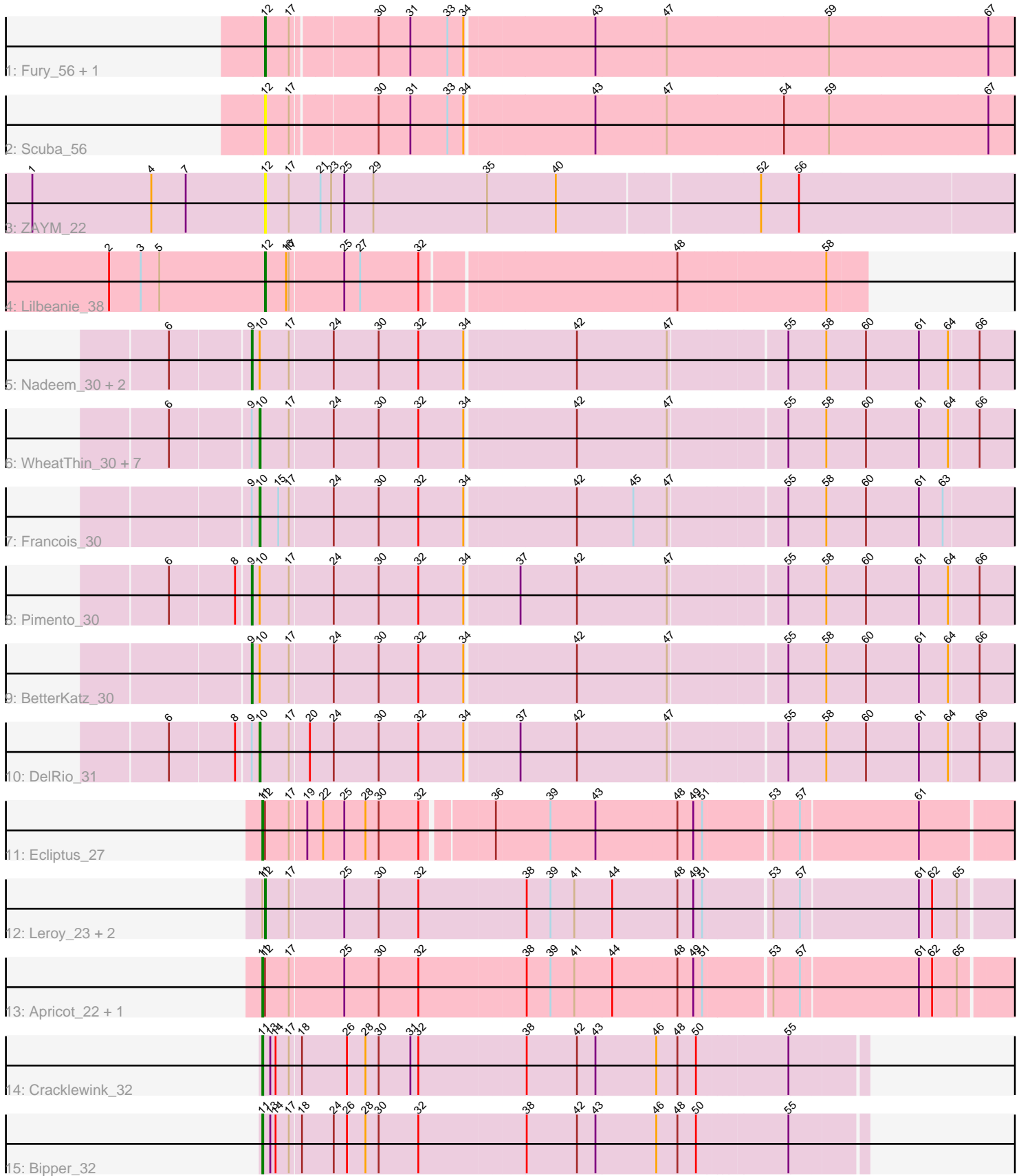


Pham 203217



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 203217 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203217 has 28 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Fury\_56, Pleakley\_56
- Track 2 : Scuba\_56
- Track 3 : ZAYM\_22
- Track 4 : Lilbeanie\_38
- Track 5 : Nadeem\_30, Brylie\_30, NancyRae\_30
- Track 6 : WheatThin\_30, Chop\_30, Bock\_30, Parada\_30, Hamood\_30, Mulch\_30, Ayotoya\_30, GrandSlam\_30
- Track 7 : Francois\_30
- Track 8 : Pimento\_30
- Track 9 : BetterKatz\_30
- Track 10 : DelRio\_31
- Track 11 : Ecliptus\_27
- Track 12 : Leroy\_23, Phistory\_24, Crater\_21
- Track 13 : Apricot\_22, Horus\_23
- Track 14 : Cracklewink\_32
- Track 15 : Bipper\_32

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

The start number called the most often in the published annotations is 10, it was called in 10 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ayotoya\_30, Bock\_30, Chop\_30, DelRio\_31, Francois\_30, GrandSlam\_30, Hamood\_30, Mulch\_30, Parada\_30, WheatThin\_30,

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

- BetterKatz\_30, Brylie\_30, Nadeem\_30, NancyRae\_30, Pimento\_30,

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

- Apricot\_22, Bipper\_32, Cracklewink\_32, Crater\_21, Ecliptus\_27, Fury\_56, Horus\_23, Leroy\_23, Lilbeanie\_38, Phistory\_24, Pleakley\_56, Scuba\_56, ZAYM\_22,

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

Start 9:

- Found in 15 of 28 ( 53.6% ) of genes in pham
- Manual Annotations of this start: 5 of 26
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BetterKatz\_30 (DI), Brylie\_30 (DI), Nadeem\_30 (DI), NancyRae\_30 (DI), Pimento\_30 (DI),

Start 10:

- Found in 15 of 28 ( 53.6% ) of genes in pham
- Manual Annotations of this start: 10 of 26
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Ayotoya\_30 (DI), Bock\_30 (DI), Chop\_30 (DI), DelRio\_31 (DI), Francois\_30 (DI), GrandSlam\_30 (DI), Hamood\_30 (DI), Mulch\_30 (DI), Parada\_30 (DI), WheatThin\_30 (DI),

Start 11:

- Found in 8 of 28 ( 28.6% ) of genes in pham
- Manual Annotations of this start: 5 of 26
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Apricot\_22 (DN3), Bipper\_32 (Y), Cracklewink\_32 (Y), Ecliptus\_27 (DN), Horus\_23 (DN1),

Start 12:

- Found in 11 of 28 ( 39.3% ) of genes in pham
- Manual Annotations of this start: 6 of 26
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Crater\_21 (DN3), Fury\_56 (CR5), Leroy\_23 (DN1), Lilbeanie\_38 (DE5), Phistory\_24 (DN1), Pleakley\_56 (CR5), Scuba\_56 (CR5), ZAYM\_22 (DB),

**Summary by clusters:**

There are 8 clusters represented in this pham: DN, CR5, DI, DB, DE5, DN1, DN3, Y,

Info for manual annotations of cluster CR5:

- Start number 12 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster DE5:

- Start number 12 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DI:

- Start number 9 was manually annotated 5 times for cluster DI.
- Start number 10 was manually annotated 10 times for cluster DI.

Info for manual annotations of cluster DN:

- Start number 11 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 11 was manually annotated 1 time for cluster DN1.
- Start number 12 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DN3:

- Start number 11 was manually annotated 1 time for cluster DN3.
- Start number 12 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster Y:

- Start number 11 was manually annotated 2 times for cluster Y.

### **Gene Information:**

Gene: Apricot\_22 Start: 18919, Stop: 19752, Start Num: 11

Candidate Starts for Apricot\_22:

(Start: 11 @18919 has 5 MA's), (Start: 12 @18922 has 6 MA's), (17, 18949), (25, 19009), (30, 19048), (32, 19093), (38, 19207), (39, 19234), (41, 19261), (44, 19303), (48, 19375), (49, 19393), (51, 19402), (53, 19474), (57, 19504), (61, 19633), (62, 19648), (65, 19675),

Gene: Ayotoya\_30 Start: 26417, Stop: 27229, Start Num: 10

Candidate Starts for Ayotoya\_30:

(6, 26321), (Start: 9 @26408 has 5 MA's), (Start: 10 @26417 has 10 MA's), (17, 26450), (24, 26498), (30, 26549), (32, 26594), (34, 26645), (42, 26759), (47, 26858), (55, 26981), (58, 27020), (60, 27065), (61, 27125), (64, 27158), (66, 27191),

Gene: BetterKatz\_30 Start: 25881, Stop: 26702, Start Num: 9

Candidate Starts for BetterKatz\_30:

(Start: 9 @25881 has 5 MA's), (Start: 10 @25890 has 10 MA's), (17, 25923), (24, 25971), (30, 26022), (32, 26067), (34, 26118), (42, 26232), (47, 26331), (55, 26454), (58, 26493), (60, 26538), (61, 26598), (64, 26631), (66, 26664),

Gene: Bipper\_32 Start: 28349, Stop: 29002, Start Num: 11

Candidate Starts for Bipper\_32:

(Start: 11 @28349 has 5 MA's), (13, 28358), (14, 28364), (17, 28379), (18, 28391), (24, 28427), (26, 28442), (28, 28463), (30, 28478), (32, 28523), (38, 28637), (42, 28694), (43, 28715), (46, 28781), (48, 28805), (50, 28826), (55, 28922),

Gene: Bock\_30 Start: 25640, Stop: 26452, Start Num: 10

Candidate Starts for Bock\_30:

(6, 25544), (Start: 9 @25631 has 5 MA's), (Start: 10 @25640 has 10 MA's), (17, 25673), (24, 25721), (30, 25772), (32, 25817), (34, 25868), (42, 25982), (47, 26081), (55, 26204), (58, 26243), (60, 26288), (61, 26348), (64, 26381), (66, 26414),

Gene: Brylie\_30 Start: 25619, Stop: 26440, Start Num: 9

Candidate Starts for Brylie\_30:

(6, 25532), (Start: 9 @25619 has 5 MA's), (Start: 10 @25628 has 10 MA's), (17, 25661), (24, 25709), (30, 25760), (32, 25805), (34, 25856), (42, 25970), (47, 26069), (55, 26192), (58, 26231), (60, 26276), (61, 26336), (64, 26369), (66, 26402),

Gene: Chop\_30 Start: 26165, Stop: 26977, Start Num: 10

Candidate Starts for Chop\_30:

(6, 26069), (Start: 9 @26156 has 5 MA's), (Start: 10 @26165 has 10 MA's), (17, 26198), (24, 26246), (30, 26297), (32, 26342), (34, 26393), (42, 26507), (47, 26606), (55, 26729), (58, 26768), (60, 26813), (61, 26873), (64, 26906), (66, 26939),

Gene: Cracklewink\_32 Start: 28349, Stop: 29002, Start Num: 11

Candidate Starts for Cracklewink\_32:

(Start: 11 @28349 has 5 MA's), (13, 28358), (14, 28364), (17, 28379), (18, 28391), (26, 28442), (28, 28463), (30, 28478), (31, 28514), (32, 28523), (38, 28637), (42, 28694), (43, 28715), (46, 28781), (48, 28805), (50, 28826), (55, 28922),

Gene: Crater\_21 Start: 18922, Stop: 19752, Start Num: 12

Candidate Starts for Crater\_21:

(Start: 11 @18919 has 5 MA's), (Start: 12 @18922 has 6 MA's), (17, 18949), (25, 19009), (30, 19048), (32, 19093), (38, 19207), (39, 19234), (41, 19261), (44, 19303), (48, 19375), (49, 19393), (51, 19402), (53, 19474), (57, 19504), (61, 19633), (62, 19648), (65, 19675),

Gene: DelRio\_31 Start: 26636, Stop: 27448, Start Num: 10

Candidate Starts for DelRio\_31:

(6, 26540), (8, 26612), (Start: 9 @26627 has 5 MA's), (Start: 10 @26636 has 10 MA's), (17, 26669), (20, 26690), (24, 26717), (30, 26768), (32, 26813), (34, 26864), (37, 26915), (42, 26978), (47, 27077), (55, 27200), (58, 27239), (60, 27284), (61, 27344), (64, 27377), (66, 27410),

Gene: Ecliptus\_27 Start: 21245, Stop: 22066, Start Num: 11

Candidate Starts for Ecliptus\_27:

(Start: 11 @21245 has 5 MA's), (Start: 12 @21248 has 6 MA's), (17, 21275), (19, 21293), (22, 21311), (25, 21335), (28, 21359), (30, 21374), (32, 21419), (36, 21491), (39, 21548), (43, 21599), (48, 21689), (49, 21707), (51, 21716), (53, 21788), (57, 21818), (61, 21947),

Gene: Francois\_30 Start: 25654, Stop: 26466, Start Num: 10

Candidate Starts for Francois\_30:

(Start: 9 @25645 has 5 MA's), (Start: 10 @25654 has 10 MA's), (15, 25675), (17, 25687), (24, 25735), (30, 25786), (32, 25831), (34, 25882), (42, 25996), (45, 26059), (47, 26095), (55, 26218), (58, 26257), (60, 26302), (61, 26362), (63, 26389),

Gene: Fury\_56 Start: 37521, Stop: 38534, Start Num: 12

Candidate Starts for Fury\_56:

(Start: 12 @37521 has 6 MA's), (17, 37548), (30, 37638), (31, 37674), (33, 37716), (34, 37734), (43, 37869), (47, 37947), (59, 38127), (67, 38304),

Gene: GrandSlam\_30 Start: 26165, Stop: 26977, Start Num: 10

Candidate Starts for GrandSlam\_30:

(6, 26069), (Start: 9 @26156 has 5 MA's), (Start: 10 @26165 has 10 MA's), (17, 26198), (24, 26246), (30, 26297), (32, 26342), (34, 26393), (42, 26507), (47, 26606), (55, 26729), (58, 26768), (60, 26813), (61, 26873), (64, 26906), (66, 26939),

Gene: Hamood\_30 Start: 26165, Stop: 26977, Start Num: 10

Candidate Starts for Hamood\_30:

(6, 26069), (Start: 9 @26156 has 5 MA's), (Start: 10 @26165 has 10 MA's), (17, 26198), (24, 26246), (30, 26297), (32, 26342), (34, 26393), (42, 26507), (47, 26606), (55, 26729), (58, 26768), (60, 26813), (61, 26873), (64, 26906), (66, 26939),

Gene: Horus\_23 Start: 19383, Stop: 20216, Start Num: 11

Candidate Starts for Horus\_23:

(Start: 11 @19383 has 5 MA's), (Start: 12 @19386 has 6 MA's), (17, 19413), (25, 19473), (30, 19512), (32, 19557), (38, 19671), (39, 19698), (41, 19725), (44, 19767), (48, 19839), (49, 19857), (51, 19866), (53, 19938), (57, 19968), (61, 20097), (62, 20112), (65, 20139),

Gene: Leroy\_23 Start: 19387, Stop: 20217, Start Num: 12

Candidate Starts for Leroy\_23:

(Start: 11 @19384 has 5 MA's), (Start: 12 @19387 has 6 MA's), (17, 19414), (25, 19474), (30, 19513), (32, 19558), (38, 19672), (39, 19699), (41, 19726), (44, 19768), (48, 19840), (49, 19858), (51, 19867), (53, 19939), (57, 19969), (61, 20098), (62, 20113), (65, 20140),

Gene: Lilbeanie\_38 Start: 31874, Stop: 32515, Start Num: 12

Candidate Starts for Lilbeanie\_38:

(2, 31697), (3, 31733), (5, 31754), (Start: 12 @31874 has 6 MA's), (16, 31898), (17, 31901), (25, 31961), (27, 31979), (32, 32045), (48, 32315), (58, 32471),

Gene: Mulch\_30 Start: 25628, Stop: 26440, Start Num: 10

Candidate Starts for Mulch\_30:

(6, 25532), (Start: 9 @25619 has 5 MA's), (Start: 10 @25628 has 10 MA's), (17, 25661), (24, 25709), (30, 25760), (32, 25805), (34, 25856), (42, 25970), (47, 26069), (55, 26192), (58, 26231), (60, 26276), (61, 26336), (64, 26369), (66, 26402),

Gene: Nadeem\_30 Start: 25619, Stop: 26440, Start Num: 9

Candidate Starts for Nadeem\_30:

(6, 25532), (Start: 9 @25619 has 5 MA's), (Start: 10 @25628 has 10 MA's), (17, 25661), (24, 25709), (30, 25760), (32, 25805), (34, 25856), (42, 25970), (47, 26069), (55, 26192), (58, 26231), (60, 26276), (61, 26336), (64, 26369), (66, 26402),

Gene: NancyRae\_30 Start: 25628, Stop: 26449, Start Num: 9

Candidate Starts for NancyRae\_30:

(6, 25541), (Start: 9 @25628 has 5 MA's), (Start: 10 @25637 has 10 MA's), (17, 25670), (24, 25718), (30, 25769), (32, 25814), (34, 25865), (42, 25979), (47, 26078), (55, 26201), (58, 26240), (60, 26285), (61, 26345), (64, 26378), (66, 26411),

Gene: Parada\_30 Start: 25628, Stop: 26440, Start Num: 10

Candidate Starts for Parada\_30:

(6, 25532), (Start: 9 @25619 has 5 MA's), (Start: 10 @25628 has 10 MA's), (17, 25661), (24, 25709), (30, 25760), (32, 25805), (34, 25856), (42, 25970), (47, 26069), (55, 26192), (58, 26231), (60, 26276), (61, 26336), (64, 26369), (66, 26402),

Gene: Phistory\_24 Start: 20152, Stop: 20982, Start Num: 12

Candidate Starts for Phistory\_24:

(Start: 11 @20149 has 5 MA's), (Start: 12 @20152 has 6 MA's), (17, 20179), (25, 20239), (30, 20278), (32, 20323), (38, 20437), (39, 20464), (41, 20491), (44, 20533), (48, 20605), (49, 20623), (51, 20632), (53, 20704), (57, 20734), (61, 20863), (62, 20878), (65, 20905),

Gene: Pimento\_30 Start: 25097, Stop: 25918, Start Num: 9

Candidate Starts for Pimento\_30:

(6, 25010), (8, 25082), (Start: 9 @25097 has 5 MA's), (Start: 10 @25106 has 10 MA's), (17, 25139), (24, 25187), (30, 25238), (32, 25283), (34, 25334), (37, 25385), (42, 25448), (47, 25547), (55, 25670), (58, 25709), (60, 25754), (61, 25814), (64, 25847), (66, 25880),

Gene: Pleakley\_56 Start: 37522, Stop: 38535, Start Num: 12

Candidate Starts for Pleakley\_56:

(Start: 12 @37522 has 6 MA's), (17, 37549), (30, 37639), (31, 37675), (33, 37717), (34, 37735), (43, 37870), (47, 37948), (59, 38128), (67, 38305),

Gene: Scuba\_56 Start: 37596, Stop: 38609, Start Num: 12

Candidate Starts for Scuba\_56:

(Start: 12 @37596 has 6 MA's), (17, 37623), (30, 37713), (31, 37749), (33, 37791), (34, 37809), (43, 37944), (47, 38022), (54, 38151), (59, 38202), (67, 38379),

Gene: WheatThin\_30 Start: 25628, Stop: 26440, Start Num: 10

Candidate Starts for WheatThin\_30:

(6, 25532), (Start: 9 @25619 has 5 MA's), (Start: 10 @25628 has 10 MA's), (17, 25661), (24, 25709), (30, 25760), (32, 25805), (34, 25856), (42, 25970), (47, 26069), (55, 26192), (58, 26231), (60, 26276), (61, 26336), (64, 26369), (66, 26402),

Gene: ZAYM\_22 Start: 20018, Stop: 20857, Start Num: 12

Candidate Starts for ZAYM\_22:

(1, 19754), (4, 19889), (7, 19928), (Start: 12 @20018 has 6 MA's), (17, 20045), (21, 20081), (23, 20093), (25, 20108), (29, 20141), (35, 20270), (40, 20348), (52, 20570), (56, 20612),