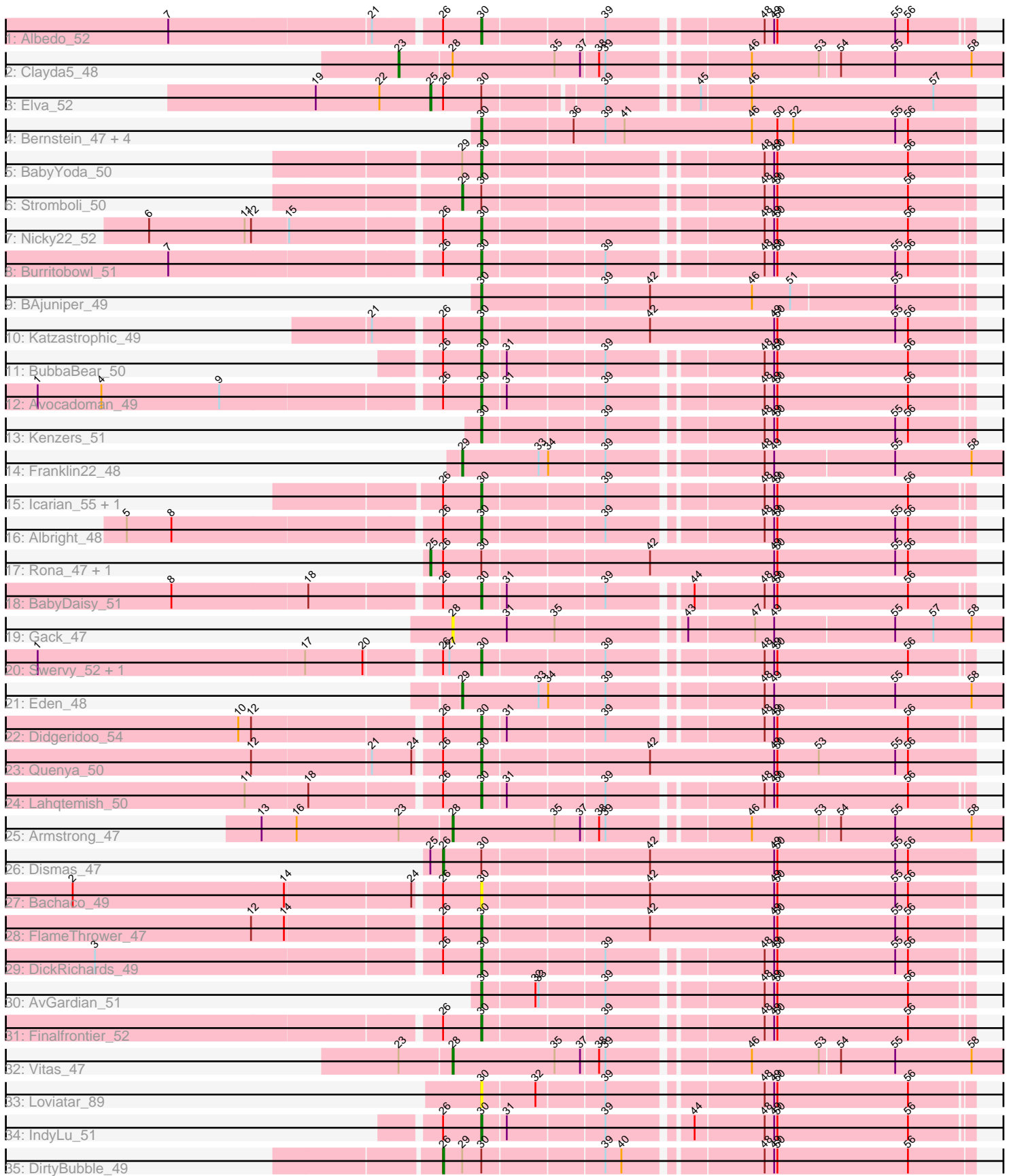


## Pham 2512



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 2512 Report

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

Pham number 2512 has 42 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Albedo\_52
- Track 2 : Clayda5\_48
- Track 3 : Elva\_52
- Track 4 : Bernstein\_47, Rollins\_47, Skylord\_47, Coltrane\_47, Brahms\_47
- Track 5 : BabyYoda\_50
- Track 6 : Stromboli\_50
- Track 7 : Nicky22\_52
- Track 8 : Burritobowl\_51
- Track 9 : BAjuniper\_49
- Track 10 : Katzastrophic\_49
- Track 11 : BubbaBear\_50
- Track 12 : Avocadoman\_49
- Track 13 : Kenzers\_51
- Track 14 : Franklin22\_48
- Track 15 : Icarian\_55, Stoor\_50
- Track 16 : Albright\_48
- Track 17 : Rona\_47, Sharkboy\_48
- Track 18 : BabyDaisy\_51
- Track 19 : Gack\_47
- Track 20 : Swervy\_52, SarBear\_51
- Track 21 : Eden\_48
- Track 22 : Didgeridoo\_54
- Track 23 : Quenya\_50
- Track 24 : Lahqtemish\_50
- Track 25 : Armstrong\_47
- Track 26 : Dismas\_47
- Track 27 : Bachaco\_49
- Track 28 : FlameThrower\_47
- Track 29 : DickRichards\_49
- Track 30 : AvGardian\_51
- Track 31 : Finalfrontier\_52
- Track 32 : Vitas\_47
- Track 33 : Loviatar\_89
- Track 34 : IndyLu\_51
- Track 35 : DirtyBubble\_49

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

The start number called the most often in the published annotations is 30, it was called in 27 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albedo\_52, Albright\_48, AvGardian\_51, Avocadoman\_49, BAJuniper\_49, BabyDaisy\_51, BabyYoda\_50, Bachaco\_49, Bernstein\_47, Brahms\_47, BubbaBear\_50, Burritobowl\_51, Coltrane\_47, DickRichards\_49, Didgeridoo\_54, Finalfrontier\_52, FlameThrower\_47, Icarian\_55, IndyLu\_51, Katzastrophic\_49, Kenzers\_51, Lahqtemish\_50, Loviatar\_89, Nicky22\_52, Quenya\_50, Rollins\_47, SarBear\_51, Skylord\_47, Stoor\_50, Swervy\_52,

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

- DirtyBubble\_49, Dismas\_47, Elva\_52, Rona\_47, Sharkboy\_48, Stromboli\_50,

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

- Armstrong\_47, Clayda5\_48, Eden\_48, Franklin22\_48, Gack\_47, Vitas\_47,

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

Start 23:

- Found in 3 of 42 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 1 of 38
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Clayda5\_48 (EB),

Start 25:

- Found in 4 of 42 ( 9.5% ) of genes in pham
- Manual Annotations of this start: 3 of 38
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Elva\_52 (EB), Rona\_47 (EB), Sharkboy\_48 (EB),

Start 26:

- Found in 25 of 42 ( 59.5% ) of genes in pham
- Manual Annotations of this start: 2 of 38
- Called 8.0% of time when present
- Phage (with cluster) where this start called: DirtyBubble\_49 (EB), Dismas\_47 (EB),

Start 28:

- Found in 4 of 42 ( 9.5% ) of genes in pham
- Manual Annotations of this start: 2 of 38
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Armstrong\_47 (EB), Gack\_47 (EB), Vitas\_47 (EB),

Start 29:

- Found in 5 of 42 ( 11.9% ) of genes in pham
- Manual Annotations of this start: 3 of 38
- Called 60.0% of time when present

- Phage (with cluster) where this start called: Eden\_48 (EB), Franklin22\_48 (EB), Stromboli\_50 (EB),

Start 30:

- Found in 36 of 42 ( 85.7% ) of genes in pham
- Manual Annotations of this start: 27 of 38
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Albedo\_52 (EB), Albright\_48 (EB), AvGardian\_51 (EB), Avocadoman\_49 (EB), BAjuniper\_49 (EB), BabyDaisy\_51 (EB), BabyYoda\_50 (EB), Bachaco\_49 (EB), Bernstein\_47 (EB), Brahms\_47 (EB), BubbaBear\_50 (EB), Burritobowl\_51 (EB), Coltrane\_47 (EB), DickRichards\_49 (EB), Didgeridoo\_54 (EB), Finalfrontier\_52 (EB), FlameThrower\_47 (EB), Icarian\_55 (EB), IndyLu\_51 (EB), Katzastrophic\_49 (EB), Kenzers\_51 (EB), Lahqtemish\_50 (EB), Loviatar\_89 (EB), Nicky22\_52 (EB), Quenya\_50 (EB), Rollins\_47 (EB), SarBear\_51 (EB), Skylord\_47 (EB), Stoor\_50 (EB), Swervy\_52 (EB),

### Summary by clusters:

There is one cluster represented in this pham: EB

Info for manual annotations of cluster EB:

- Start number 23 was manually annotated 1 time for cluster EB.
- Start number 25 was manually annotated 3 times for cluster EB.
- Start number 26 was manually annotated 2 times for cluster EB.
- Start number 28 was manually annotated 2 times for cluster EB.
- Start number 29 was manually annotated 3 times for cluster EB.
- Start number 30 was manually annotated 27 times for cluster EB.

### Gene Information:

Gene: Albedo\_52 Start: 34486, Stop: 34917, Start Num: 30

Candidate Starts for Albedo\_52:

(7, 34207), (21, 34393), (Start: 26 @34450 has 2 MA's), (Start: 30 @34486 has 27 MA's), (39, 34594), (48, 34726), (49, 34735), (50, 34738), (55, 34849), (56, 34861),

Gene: Albright\_48 Start: 33192, Stop: 33623, Start Num: 30

Candidate Starts for Albright\_48:

(5, 32874), (8, 32916), (Start: 26 @33156 has 2 MA's), (Start: 30 @33192 has 27 MA's), (39, 33300), (48, 33432), (49, 33441), (50, 33444), (55, 33555), (56, 33567),

Gene: Armstrong\_47 Start: 31923, Stop: 32429, Start Num: 28

Candidate Starts for Armstrong\_47:

(13, 31746), (16, 31779), (Start: 23 @31875 has 1 MA's), (Start: 28 @31923 has 2 MA's), (35, 32019), (37, 32043), (38, 32058), (39, 32064), (46, 32184), (53, 32247), (54, 32265), (55, 32316), (58, 32388),

Gene: AvGardian\_51 Start: 34304, Stop: 34735, Start Num: 30

Candidate Starts for AvGardian\_51:

(Start: 30 @34304 has 27 MA's), (32, 34352), (33, 34355), (39, 34412), (48, 34544), (49, 34553), (50, 34556), (56, 34679),

Gene: Avocadoman\_49 Start: 33399, Stop: 33830, Start Num: 30

Candidate Starts for Avocadoman\_49:

(1, 32997), (4, 33057), (9, 33168), (Start: 26 @33363 has 2 MA's), (Start: 30 @33399 has 27 MA's), (31, 33420), (39, 33507), (48, 33639), (49, 33648), (50, 33651), (56, 33774),

Gene: BAjuniper\_49 Start: 35052, Stop: 35501, Start Num: 30

Candidate Starts for BAjuniper\_49:

(Start: 30 @35052 has 27 MA's), (39, 35163), (42, 35205), (46, 35301), (51, 35337), (55, 35433),

Gene: BabyDaisy\_51 Start: 34557, Stop: 34988, Start Num: 30

Candidate Starts for BabyDaisy\_51:

(8, 34281), (18, 34407), (Start: 26 @34521 has 2 MA's), (Start: 30 @34557 has 27 MA's), (31, 34578), (39, 34665), (44, 34734), (48, 34797), (49, 34806), (50, 34809), (56, 34932),

Gene: BabyYoda\_50 Start: 34693, Stop: 35127, Start Num: 30

Candidate Starts for BabyYoda\_50:

(Start: 29 @34675 has 3 MA's), (Start: 30 @34693 has 27 MA's), (48, 34933), (49, 34942), (50, 34945), (56, 35068),

Gene: Bachaco\_49 Start: 35405, Stop: 35857, Start Num: 30

Candidate Starts for Bachaco\_49:

(2, 35036), (14, 35234), (24, 35348), (Start: 26 @35369 has 2 MA's), (Start: 30 @35405 has 27 MA's), (42, 35555), (49, 35672), (50, 35675), (55, 35786), (56, 35798),

Gene: Bernstein\_47 Start: 31972, Stop: 32427, Start Num: 30

Candidate Starts for Bernstein\_47:

(Start: 30 @31972 has 27 MA's), (36, 32053), (39, 32083), (41, 32101), (46, 32221), (50, 32245), (52, 32260), (55, 32356), (56, 32368),

Gene: Brahms\_47 Start: 31892, Stop: 32347, Start Num: 30

Candidate Starts for Brahms\_47:

(Start: 30 @31892 has 27 MA's), (36, 31973), (39, 32003), (41, 32021), (46, 32141), (50, 32165), (52, 32180), (55, 32276), (56, 32288),

Gene: BubbaBear\_50 Start: 34176, Stop: 34607, Start Num: 30

Candidate Starts for BubbaBear\_50:

(Start: 26 @34140 has 2 MA's), (Start: 30 @34176 has 27 MA's), (31, 34197), (39, 34284), (48, 34416), (49, 34425), (50, 34428), (56, 34551),

Gene: Burritobowl\_51 Start: 34100, Stop: 34531, Start Num: 30

Candidate Starts for Burritobowl\_51:

(7, 33821), (Start: 26 @34064 has 2 MA's), (Start: 30 @34100 has 27 MA's), (39, 34208), (48, 34340), (49, 34349), (50, 34352), (55, 34463), (56, 34475),

Gene: Clayda5\_48 Start: 31858, Stop: 32412, Start Num: 23

Candidate Starts for Clayda5\_48:

(Start: 23 @31858 has 1 MA's), (Start: 28 @31906 has 2 MA's), (35, 32002), (37, 32026), (38, 32041), (39, 32047), (46, 32167), (53, 32230), (54, 32248), (55, 32299), (58, 32371),

Gene: Coltrane\_47 Start: 31892, Stop: 32347, Start Num: 30

Candidate Starts for Coltrane\_47:

(Start: 30 @31892 has 27 MA's), (36, 31973), (39, 32003), (41, 32021), (46, 32141), (50, 32165), (52, 32180), (55, 32276), (56, 32288),

Gene: DickRichards\_49 Start: 34212, Stop: 34643, Start Num: 30

Candidate Starts for DickRichards\_49:

(3, 33864), (Start: 26 @34176 has 2 MA's), (Start: 30 @34212 has 27 MA's), (39, 34320), (48, 34452), (49, 34461), (50, 34464), (55, 34575), (56, 34587),

Gene: Didgeridoo\_54 Start: 34903, Stop: 35334, Start Num: 30

Candidate Starts for Didgeridoo\_54:

(10, 34690), (12, 34702), (Start: 26 @34867 has 2 MA's), (Start: 30 @34903 has 27 MA's), (31, 34924), (39, 35011), (48, 35143), (49, 35152), (50, 35155), (56, 35278),

Gene: DirtyBubble\_49 Start: 34325, Stop: 34795, Start Num: 26

Candidate Starts for DirtyBubble\_49:

(Start: 26 @34325 has 2 MA's), (Start: 29 @34343 has 3 MA's), (Start: 30 @34361 has 27 MA's), (39, 34469), (40, 34484), (48, 34601), (49, 34610), (50, 34613), (56, 34736),

Gene: Dismas\_47 Start: 34350, Stop: 34841, Start Num: 26

Candidate Starts for Dismas\_47:

(Start: 25 @34338 has 3 MA's), (Start: 26 @34350 has 2 MA's), (Start: 30 @34386 has 27 MA's), (42, 34536), (49, 34653), (50, 34656), (55, 34767), (56, 34779),

Gene: Eden\_48 Start: 32939, Stop: 33436, Start Num: 29

Candidate Starts for Eden\_48:

(Start: 29 @32939 has 3 MA's), (33, 33011), (34, 33020), (39, 33071), (48, 33203), (49, 33212), (55, 33323), (58, 33395),

Gene: Elva\_52 Start: 34735, Stop: 35214, Start Num: 25

Candidate Starts for Elva\_52:

(19, 34627), (22, 34687), (Start: 25 @34735 has 3 MA's), (Start: 26 @34747 has 2 MA's), (Start: 30 @34783 has 27 MA's), (39, 34885), (45, 34960), (46, 35005), (57, 35176),

Gene: Finalfrontier\_52 Start: 34994, Stop: 35425, Start Num: 30

Candidate Starts for Finalfrontier\_52:

(Start: 26 @34958 has 2 MA's), (Start: 30 @34994 has 27 MA's), (39, 35102), (48, 35234), (49, 35243), (50, 35246), (56, 35369),

Gene: FlameThrower\_47 Start: 34204, Stop: 34656, Start Num: 30

Candidate Starts for FlameThrower\_47:

(12, 34003), (14, 34033), (Start: 26 @34168 has 2 MA's), (Start: 30 @34204 has 27 MA's), (42, 34354), (49, 34471), (50, 34474), (55, 34585), (56, 34597),

Gene: Franklin22\_48 Start: 32487, Stop: 32984, Start Num: 29

Candidate Starts for Franklin22\_48:

(Start: 29 @32487 has 3 MA's), (33, 32559), (34, 32568), (39, 32619), (48, 32751), (49, 32760), (55, 32871), (58, 32943),

Gene: Gack\_47 Start: 32532, Stop: 33038, Start Num: 28

Candidate Starts for Gack\_47:

(Start: 28 @32532 has 2 MA's), (31, 32583), (35, 32628), (43, 32736), (47, 32796), (49, 32814), (55, 32925), (57, 32961), (58, 32997),

Gene: Icarian\_55 Start: 35369, Stop: 35800, Start Num: 30

Candidate Starts for Icarian\_55:

(Start: 26 @35333 has 2 MA's), (Start: 30 @35369 has 27 MA's), (39, 35477), (48, 35609), (49, 35618), (50, 35621), (56, 35744),

Gene: IndyLu\_51 Start: 34477, Stop: 34908, Start Num: 30

Candidate Starts for IndyLu\_51:

(Start: 26 @34441 has 2 MA's), (Start: 30 @34477 has 27 MA's), (31, 34498), (39, 34585), (44, 34654), (48, 34717), (49, 34726), (50, 34729), (56, 34852),

Gene: Katzastrophic\_49 Start: 34714, Stop: 35166, Start Num: 30

Candidate Starts for Katzastrophic\_49:

(21, 34621), (Start: 26 @34678 has 2 MA's), (Start: 30 @34714 has 27 MA's), (42, 34864), (49, 34981), (50, 34984), (55, 35095), (56, 35107),

Gene: Kenzers\_51 Start: 34018, Stop: 34449, Start Num: 30

Candidate Starts for Kenzers\_51:

(Start: 30 @34018 has 27 MA's), (39, 34126), (48, 34258), (49, 34267), (50, 34270), (55, 34381), (56, 34393),

Gene: Lahqtemish\_50 Start: 34476, Stop: 34907, Start Num: 30

Candidate Starts for Lahqtemish\_50:

(11, 34269), (18, 34326), (Start: 26 @34440 has 2 MA's), (Start: 30 @34476 has 27 MA's), (31, 34497), (39, 34584), (48, 34716), (49, 34725), (50, 34728), (56, 34851),

Gene: Loviatar\_89 Start: 35769, Stop: 36200, Start Num: 30

Candidate Starts for Loviatar\_89:

(Start: 30 @35769 has 27 MA's), (32, 35817), (39, 35877), (48, 36009), (49, 36018), (50, 36021), (56, 36144),

Gene: Nicky22\_52 Start: 34653, Stop: 35084, Start Num: 30

Candidate Starts for Nicky22\_52:

(6, 34356), (11, 34446), (12, 34452), (15, 34485), (Start: 26 @34617 has 2 MA's), (Start: 30 @34653 has 27 MA's), (48, 34893), (49, 34902), (50, 34905), (56, 35028),

Gene: Quenya\_50 Start: 34838, Stop: 35293, Start Num: 30

Candidate Starts for Quenya\_50:

(12, 34637), (21, 34745), (24, 34781), (Start: 26 @34802 has 2 MA's), (Start: 30 @34838 has 27 MA's), (42, 34988), (49, 35105), (50, 35108), (53, 35147), (55, 35219), (56, 35231),

Gene: Rollins\_47 Start: 31972, Stop: 32427, Start Num: 30

Candidate Starts for Rollins\_47:

(Start: 30 @31972 has 27 MA's), (36, 32053), (39, 32083), (41, 32101), (46, 32221), (50, 32245), (52, 32260), (55, 32356), (56, 32368),

Gene: Rona\_47 Start: 34329, Stop: 34832, Start Num: 25

Candidate Starts for Rona\_47:

(Start: 25 @34329 has 3 MA's), (Start: 26 @34341 has 2 MA's), (Start: 30 @34377 has 27 MA's), (42, 34527), (49, 34644), (50, 34647), (55, 34758), (56, 34770),

Gene: SarBear\_51 Start: 33842, Stop: 34273, Start Num: 30

Candidate Starts for SarBear\_51:

(1, 33440), (17, 33689), (20, 33743), (Start: 26 @33806 has 2 MA's), (27, 33812), (Start: 30 @33842 has 27 MA's), (39, 33950), (48, 34082), (49, 34091), (50, 34094), (56, 34217),

Gene: Sharkboy\_48 Start: 34428, Stop: 34931, Start Num: 25

Candidate Starts for Sharkboy\_48:

(Start: 25 @34428 has 3 MA's), (Start: 26 @34440 has 2 MA's), (Start: 30 @34476 has 27 MA's), (42, 34626), (49, 34743), (50, 34746), (55, 34857), (56, 34869),

Gene: Skylord\_47 Start: 31903, Stop: 32358, Start Num: 30

Candidate Starts for Skylord\_47:

(Start: 30 @31903 has 27 MA's), (36, 31984), (39, 32014), (41, 32032), (46, 32152), (50, 32176), (52, 32191), (55, 32287), (56, 32299),

Gene: Stoor\_50 Start: 34869, Stop: 35300, Start Num: 30

Candidate Starts for Stoor\_50:

(Start: 26 @34833 has 2 MA's), (Start: 30 @34869 has 27 MA's), (39, 34977), (48, 35109), (49, 35118), (50, 35121), (56, 35244),

Gene: Stromboli\_50 Start: 34713, Stop: 35165, Start Num: 29

Candidate Starts for Stromboli\_50:

(Start: 29 @34713 has 3 MA's), (Start: 30 @34731 has 27 MA's), (48, 34971), (49, 34980), (50, 34983), (56, 35106),

Gene: Swervy\_52 Start: 34114, Stop: 34545, Start Num: 30

Candidate Starts for Swervy\_52:

(1, 33712), (17, 33961), (20, 34015), (Start: 26 @34078 has 2 MA's), (27, 34084), (Start: 30 @34114 has 27 MA's), (39, 34222), (48, 34354), (49, 34363), (50, 34366), (56, 34489),

Gene: Vitas\_47 Start: 31912, Stop: 32418, Start Num: 28

Candidate Starts for Vitas\_47:

(Start: 23 @31864 has 1 MA's), (Start: 28 @31912 has 2 MA's), (35, 32008), (37, 32032), (38, 32047), (39, 32053), (46, 32173), (53, 32236), (54, 32254), (55, 32305), (58, 32377),