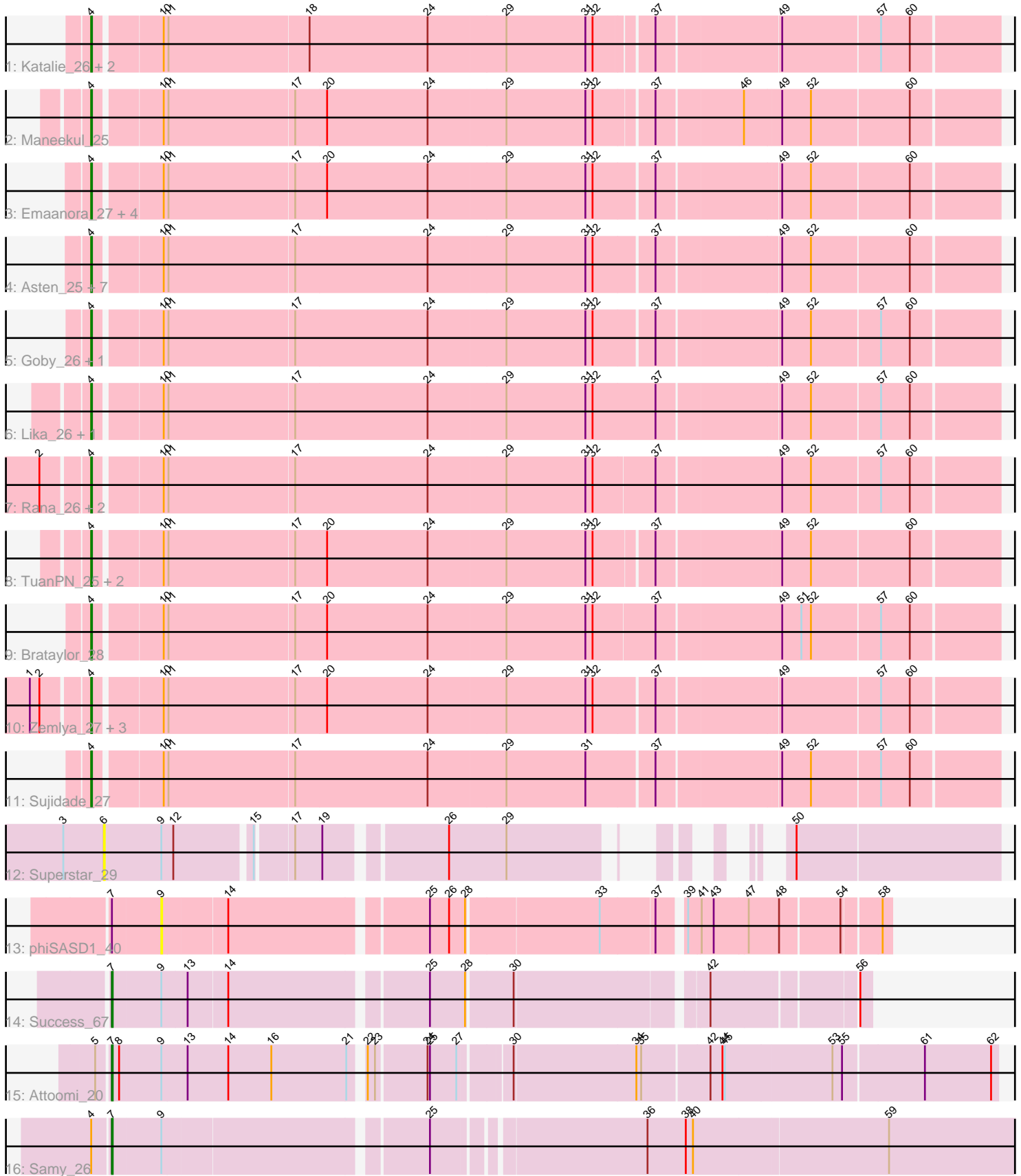


Pham 194164



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 194164 Report

This analysis was run 11/02/24 on database version 579.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 194164 has 38 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Katalie\_26, RedBear\_27, South40\_26
- Track 2 : Maneekul\_25
- Track 3 : Emaanora\_27, OzzyJ\_26, Hippo\_25, SarahRose\_25, Dwayne\_25
- Track 4 : Asten\_25, TagePhighter\_26, Triste\_25, BarryBee\_27, Snorlax\_25, Whatever\_25, Chucky\_25, Werner\_25
- Track 5 : Goby\_26, Toma\_26
- Track 6 : Lika\_26, Godpower\_27
- Track 7 : Rana\_26, Lorelei\_26, Nabi\_26
- Track 8 : TuanPN\_25, Yasdnil\_25, Ejemplo\_25
- Track 9 : Brataylor\_28
- Track 10 : Zemlya\_27, Danzina\_27, Celeste\_26, Dattran\_27
- Track 11 : Sujidade\_27
- Track 12 : Superstar\_29
- Track 13 : phiSASD1\_40
- Track 14 : Success\_67
- Track 15 : Attoomi\_20
- Track 16 : Samy\_26

### ***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 33 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Asten\_25, BarryBee\_27, Brataylor\_28, Celeste\_26, Chucky\_25, Danzina\_27, Dattran\_27, Dwayne\_25, Ejemplo\_25, Emaanora\_27, Goby\_26, Godpower\_27, Hippo\_25, Katalie\_26, Lika\_26, Lorelei\_26, Maneekul\_25, Nabi\_26, OzzyJ\_26, Rana\_26, RedBear\_27, SarahRose\_25, Snorlax\_25, South40\_26, Sujidade\_27, TagePhighter\_26, Toma\_26, Triste\_25, TuanPN\_25, Werner\_25, Whatever\_25, Yasdnil\_25, Zemlya\_27,

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

- Samy\_26,

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

- Attoomi\_20, Success\_67, Superstar\_29, phiSASD1\_40,

### Summary by start number:

Start 4:

- Found in 34 of 38 ( 89.5% ) of genes in pham
- Manual Annotations of this start: 33 of 36
- Called 97.1% of time when present
- Phage (with cluster) where this start called: Asten\_25 (BD1), BarryBee\_27 (BD1), Brataylor\_28 (BD1), Celeste\_26 (BD1), Chucky\_25 (BD1), Danzina\_27 (BD1), Dattran\_27 (BD1), Dwayne\_25 (BD1), Ejemplo\_25 (BD1), Emaanora\_27 (BD1), Goby\_26 (BD1), Godpower\_27 (BD1), Hippo\_25 (BD1), Katalie\_26 (BD1), Lika\_26 (BD1), Lorelei\_26 (BD1), Maneekul\_25 (BD1), Nabi\_26 (BD1), OzzyJ\_26 (BD1), Rana\_26 (BD1), RedBear\_27 (BD1), SarahRose\_25 (BD1), Snorlax\_25 (BD1), South40\_26 (BD1), Sujidade\_27 (BD1), TagePhighter\_26 (BD1), Toma\_26 (BD1), Triste\_25 (BD1), TuanPN\_25 (BD1), Werner\_25 (BD1), Whatever\_25 (BD1), Yasdniil\_25 (BD1), Zemlya\_27 (BD1),

Start 6:

- Found in 1 of 38 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Superstar\_29 (BD2),

Start 7:

- Found in 4 of 38 ( 10.5% ) of genes in pham
- Manual Annotations of this start: 3 of 36
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Attoomi\_20 (singleton), Samy\_26 (singleton), Success\_67 (singleton),

Start 9:

- Found in 5 of 38 ( 13.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: phiSASD1\_40 (BJ),

### Summary by clusters:

There are 4 clusters represented in this pham: singleton, BD1, BJ, BD2,

Info for manual annotations of cluster BD1:

- Start number 4 was manually annotated 33 times for cluster BD1.

### **Gene Information:**

Gene: Asten\_25 Start: 21080, Stop: 22168, Start Num: 4

Candidate Starts for Asten\_25:

(Start: 4 @21080 has 33 MA's), (10, 21158), (11, 21164), (17, 21320), (24, 21485), (29, 21581), (31, 21680), (32, 21689), (37, 21761), (49, 21905), (52, 21941), (60, 22061),

Gene: Attoomi\_20 Start: 16925, Stop: 17971, Start Num: 7

Candidate Starts for Attoomi\_20:

(5, 16910), (Start: 7 @16925 has 3 MA's), (8, 16934), (9, 16985), (13, 17015), (14, 17066), (16, 17120), (21, 17213), (22, 17225), (23, 17234), (24, 17294), (25, 17297), (27, 17330), (30, 17387), (34, 17537), (35, 17543), (42, 17624), (44, 17639), (45, 17642), (53, 17774), (55, 17786), (61, 17882), (62, 17963),

Gene: BarryBee\_27 Start: 21090, Stop: 22178, Start Num: 4

Candidate Starts for BarryBee\_27:

(Start: 4 @21090 has 33 MA's), (10, 21168), (11, 21174), (17, 21330), (24, 21495), (29, 21591), (31, 21690), (32, 21699), (37, 21771), (49, 21915), (52, 21951), (60, 22071),

Gene: Brataylor\_28 Start: 22093, Stop: 23187, Start Num: 4

Candidate Starts for Brataylor\_28:

(Start: 4 @22093 has 33 MA's), (10, 22171), (11, 22177), (17, 22333), (20, 22372), (24, 22498), (29, 22594), (31, 22693), (32, 22702), (37, 22777), (49, 22924), (51, 22948), (52, 22960), (57, 23044), (60, 23080),

Gene: Celeste\_26 Start: 21546, Stop: 22634, Start Num: 4

Candidate Starts for Celeste\_26:

(1, 21483), (2, 21495), (Start: 4 @21546 has 33 MA's), (10, 21624), (11, 21630), (17, 21786), (20, 21825), (24, 21951), (29, 22047), (31, 22146), (32, 22155), (37, 22227), (49, 22371), (57, 22491), (60, 22527),

Gene: Chucky\_25 Start: 21094, Stop: 22182, Start Num: 4

Candidate Starts for Chucky\_25:

(Start: 4 @21094 has 33 MA's), (10, 21172), (11, 21178), (17, 21334), (24, 21499), (29, 21595), (31, 21694), (32, 21703), (37, 21775), (49, 21919), (52, 21955), (60, 22075),

Gene: Danzina\_27 Start: 21847, Stop: 22935, Start Num: 4

Candidate Starts for Danzina\_27:

(1, 21784), (2, 21796), (Start: 4 @21847 has 33 MA's), (10, 21925), (11, 21931), (17, 22087), (20, 22126), (24, 22252), (29, 22348), (31, 22447), (32, 22456), (37, 22528), (49, 22672), (57, 22792), (60, 22828),

Gene: Dattran\_27 Start: 21656, Stop: 22744, Start Num: 4

Candidate Starts for Dattran\_27:

(1, 21593), (2, 21605), (Start: 4 @21656 has 33 MA's), (10, 21734), (11, 21740), (17, 21896), (20, 21935), (24, 22061), (29, 22157), (31, 22256), (32, 22265), (37, 22337), (49, 22481), (57, 22601), (60, 22637),

Gene: Dwayne\_25 Start: 21081, Stop: 22169, Start Num: 4

Candidate Starts for Dwayne\_25:

(Start: 4 @21081 has 33 MA's), (10, 21159), (11, 21165), (17, 21321), (20, 21360), (24, 21486), (29, 21582), (31, 21681), (32, 21690), (37, 21762), (49, 21906), (52, 21942), (60, 22062),

Gene: Ejemplo\_25 Start: 21116, Stop: 22204, Start Num: 4

Candidate Starts for Ejemplo\_25:

(Start: 4 @21116 has 33 MA's), (10, 21194), (11, 21200), (17, 21356), (20, 21395), (24, 21521), (29, 21617), (31, 21716), (32, 21725), (37, 21794), (49, 21941), (52, 21977), (60, 22097),

Gene: Emaanora\_27 Start: 21039, Stop: 22127, Start Num: 4

Candidate Starts for Emaanora\_27:

(Start: 4 @21039 has 33 MA's), (10, 21117), (11, 21123), (17, 21279), (20, 21318), (24, 21444), (29, 21540), (31, 21639), (32, 21648), (37, 21720), (49, 21864), (52, 21900), (60, 22020),

Gene: Goby\_26 Start: 21661, Stop: 22749, Start Num: 4

Candidate Starts for Goby\_26:

(Start: 4 @21661 has 33 MA's), (10, 21739), (11, 21745), (17, 21901), (24, 22066), (29, 22162), (31, 22261), (32, 22270), (37, 22342), (49, 22486), (52, 22522), (57, 22606), (60, 22642),

Gene: Godpower\_27 Start: 21654, Stop: 22748, Start Num: 4

Candidate Starts for Godpower\_27:

(Start: 4 @21654 has 33 MA's), (10, 21732), (11, 21738), (17, 21894), (24, 22059), (29, 22155), (31, 22254), (32, 22263), (37, 22341), (49, 22485), (52, 22521), (57, 22605), (60, 22641),

Gene: Hippo\_25 Start: 21090, Stop: 22178, Start Num: 4

Candidate Starts for Hippo\_25:

(Start: 4 @21090 has 33 MA's), (10, 21168), (11, 21174), (17, 21330), (20, 21369), (24, 21495), (29, 21591), (31, 21690), (32, 21699), (37, 21771), (49, 21915), (52, 21951), (60, 22071),

Gene: Katalie\_26 Start: 21379, Stop: 22464, Start Num: 4

Candidate Starts for Katalie\_26:

(Start: 4 @21379 has 33 MA's), (10, 21457), (11, 21463), (18, 21637), (24, 21784), (29, 21880), (31, 21979), (32, 21988), (37, 22054), (49, 22201), (57, 22321), (60, 22357),

Gene: Lika\_26 Start: 21658, Stop: 22752, Start Num: 4

Candidate Starts for Lika\_26:

(Start: 4 @21658 has 33 MA's), (10, 21736), (11, 21742), (17, 21898), (24, 22063), (29, 22159), (31, 22258), (32, 22267), (37, 22345), (49, 22489), (52, 22525), (57, 22609), (60, 22645),

Gene: Lorelei\_26 Start: 21627, Stop: 22721, Start Num: 4

Candidate Starts for Lorelei\_26:

(2, 21576), (Start: 4 @21627 has 33 MA's), (10, 21705), (11, 21711), (17, 21867), (24, 22032), (29, 22128), (31, 22227), (32, 22236), (37, 22311), (49, 22458), (52, 22494), (57, 22578), (60, 22614),

Gene: Maneekul\_25 Start: 21115, Stop: 22203, Start Num: 4

Candidate Starts for Maneekul\_25:

(Start: 4 @21115 has 33 MA's), (10, 21193), (11, 21199), (17, 21355), (20, 21394), (24, 21520), (29, 21616), (31, 21715), (32, 21724), (37, 21793), (46, 21895), (49, 21940), (52, 21976), (60, 22096),

Gene: Nabi\_26 Start: 21627, Stop: 22721, Start Num: 4

Candidate Starts for Nabi\_26:

(2, 21576), (Start: 4 @21627 has 33 MA's), (10, 21705), (11, 21711), (17, 21867), (24, 22032), (29, 22128), (31, 22227), (32, 22236), (37, 22311), (49, 22458), (52, 22494), (57, 22578), (60, 22614),

Gene: OzzyJ\_26 Start: 21081, Stop: 22169, Start Num: 4

Candidate Starts for OzzyJ\_26:

(Start: 4 @21081 has 33 MA's), (10, 21159), (11, 21165), (17, 21321), (20, 21360), (24, 21486), (29, 21582), (31, 21681), (32, 21690), (37, 21762), (49, 21906), (52, 21942), (60, 22062),

Gene: Rana\_26 Start: 21627, Stop: 22721, Start Num: 4

Candidate Starts for Rana\_26:

(2, 21576), (Start: 4 @21627 has 33 MA's), (10, 21705), (11, 21711), (17, 21867), (24, 22032), (29, 22128), (31, 22227), (32, 22236), (37, 22311), (49, 22458), (52, 22494), (57, 22578), (60, 22614),

Gene: RedBear\_27 Start: 21379, Stop: 22464, Start Num: 4

Candidate Starts for RedBear\_27:

(Start: 4 @21379 has 33 MA's), (10, 21457), (11, 21463), (18, 21637), (24, 21784), (29, 21880), (31, 21979), (32, 21988), (37, 22054), (49, 22201), (57, 22321), (60, 22357),

Gene: Samy\_26 Start: 20532, Stop: 21713, Start Num: 7

Candidate Starts for Samy\_26:

(Start: 4 @20511 has 33 MA's), (Start: 7 @20532 has 3 MA's), (9, 20592), (25, 20901), (36, 21147), (38, 21195), (40, 21204), (59, 21444),

Gene: SarahRose\_25 Start: 21090, Stop: 22178, Start Num: 4

Candidate Starts for SarahRose\_25:

(Start: 4 @21090 has 33 MA's), (10, 21168), (11, 21174), (17, 21330), (20, 21369), (24, 21495), (29, 21591), (31, 21690), (32, 21699), (37, 21771), (49, 21915), (52, 21951), (60, 22071),

Gene: Snorlax\_25 Start: 21093, Stop: 22181, Start Num: 4

Candidate Starts for Snorlax\_25:

(Start: 4 @21093 has 33 MA's), (10, 21171), (11, 21177), (17, 21333), (24, 21498), (29, 21594), (31, 21693), (32, 21702), (37, 21774), (49, 21918), (52, 21954), (60, 22074),

Gene: South40\_26 Start: 21379, Stop: 22464, Start Num: 4

Candidate Starts for South40\_26:

(Start: 4 @21379 has 33 MA's), (10, 21457), (11, 21463), (18, 21637), (24, 21784), (29, 21880), (31, 21979), (32, 21988), (37, 22054), (49, 22201), (57, 22321), (60, 22357),

Gene: Success\_67 Start: 44240, Stop: 45103, Start Num: 7

Candidate Starts for Success\_67:

(Start: 7 @44240 has 3 MA's), (9, 44300), (13, 44330), (14, 44378), (25, 44609), (28, 44651), (30, 44705), (42, 44924), (56, 45089),

Gene: Sujidade\_27 Start: 21949, Stop: 23037, Start Num: 4

Candidate Starts for Sujidade\_27:

(Start: 4 @21949 has 33 MA's), (10, 22027), (11, 22033), (17, 22189), (24, 22354), (29, 22450), (31, 22549), (37, 22630), (49, 22774), (52, 22810), (57, 22894), (60, 22930),

Gene: Superstar\_29 Start: 22840, Stop: 23736, Start Num: 6

Candidate Starts for Superstar\_29:

(3, 22789), (6, 22840), (9, 22912), (12, 22927), (15, 23017), (17, 23059), (19, 23092), (26, 23224), (29, 23296), (50, 23485),

Gene: TagePighther\_26 Start: 21093, Stop: 22181, Start Num: 4

Candidate Starts for TagePighther\_26:

(Start: 4 @21093 has 33 MA's), (10, 21171), (11, 21177), (17, 21333), (24, 21498), (29, 21594), (31, 21693), (32, 21702), (37, 21774), (49, 21918), (52, 21954), (60, 22074),

Gene: Toma\_26 Start: 21661, Stop: 22749, Start Num: 4

Candidate Starts for Toma\_26:

(Start: 4 @21661 has 33 MA's), (10, 21739), (11, 21745), (17, 21901), (24, 22066), (29, 22162), (31, 22261), (32, 22270), (37, 22342), (49, 22486), (52, 22522), (57, 22606), (60, 22642),

Gene: Triste\_25 Start: 21081, Stop: 22169, Start Num: 4

Candidate Starts for Triste\_25:

(Start: 4 @21081 has 33 MA's), (10, 21159), (11, 21165), (17, 21321), (24, 21486), (29, 21582), (31, 21681), (32, 21690), (37, 21762), (49, 21906), (52, 21942), (60, 22062),

Gene: TuanPN\_25 Start: 21116, Stop: 22204, Start Num: 4

Candidate Starts for TuanPN\_25:

(Start: 4 @21116 has 33 MA's), (10, 21194), (11, 21200), (17, 21356), (20, 21395), (24, 21521), (29, 21617), (31, 21716), (32, 21725), (37, 21794), (49, 21941), (52, 21977), (60, 22097),

Gene: Werner\_25 Start: 21091, Stop: 22179, Start Num: 4

Candidate Starts for Werner\_25:

(Start: 4 @21091 has 33 MA's), (10, 21169), (11, 21175), (17, 21331), (24, 21496), (29, 21592), (31, 21691), (32, 21700), (37, 21772), (49, 21916), (52, 21952), (60, 22072),

Gene: Whatever\_25 Start: 21091, Stop: 22179, Start Num: 4

Candidate Starts for Whatever\_25:

(Start: 4 @21091 has 33 MA's), (10, 21169), (11, 21175), (17, 21331), (24, 21496), (29, 21592), (31, 21691), (32, 21700), (37, 21772), (49, 21916), (52, 21952), (60, 22072),

Gene: Yasdni\_25 Start: 21112, Stop: 22200, Start Num: 4

Candidate Starts for Yasdni\_25:

(Start: 4 @21112 has 33 MA's), (10, 21190), (11, 21196), (17, 21352), (20, 21391), (24, 21517), (29, 21613), (31, 21712), (32, 21721), (37, 21790), (49, 21937), (52, 21973), (60, 22093),

Gene: Zemlya\_27 Start: 21653, Stop: 22741, Start Num: 4

Candidate Starts for Zemlya\_27:

(1, 21590), (2, 21602), (Start: 4 @21653 has 33 MA's), (10, 21731), (11, 21737), (17, 21893), (20, 21932), (24, 22058), (29, 22154), (31, 22253), (32, 22262), (37, 22334), (49, 22478), (57, 22598), (60, 22634),

Gene: phiSASD1\_40 Start: 16596, Stop: 17432, Start Num: 9

Candidate Starts for phiSASD1\_40:

(Start: 7 @16536 has 3 MA's), (9, 16596), (14, 16674), (25, 16905), (26, 16929), (28, 16947), (33, 17106), (37, 17172), (39, 17199), (41, 17214), (43, 17229), (47, 17271), (48, 17307), (54, 17379), (58, 17421),