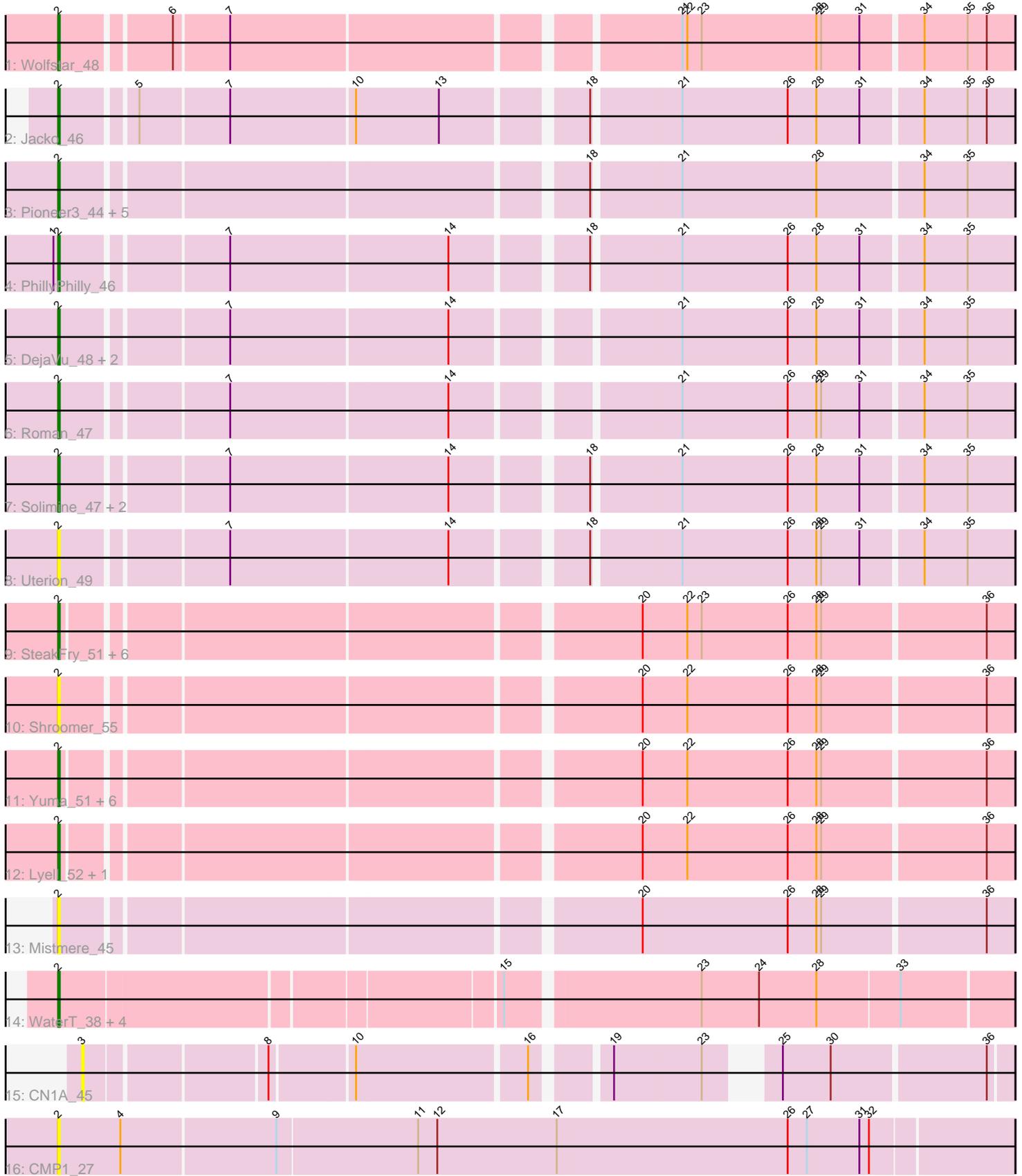


Pham 289533



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 289533 Report

This analysis was run 03/28/26 on database version 641.

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 289533 has 42 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Wolfstar\_48
- Track 2 : Jacko\_46
- Track 3 : Pioneer3\_44, Tandem\_44, Platte\_44, Alleb\_45, Hortus1\_44, OlinDD\_44
- Track 4 : PhillyPhilly\_46
- Track 5 : DejaVu\_48, Lupine\_45, Saradis\_47
- Track 6 : Roman\_47
- Track 7 : Solimine\_47, Hubbs\_47, Pavlo\_46
- Track 8 : Uterion\_49
- Track 9 : SteakFry\_51, DustyDino\_55, Welcome\_53, RunningBrook\_53, Issa7\_51, Musetta\_52, HollowPurple\_53
- Track 10 : Shroomer\_55
- Track 11 : Yuma\_51, Fork\_48, Casablanacas\_53, Erenyeager\_52, ASegato\_51, StevieWelch\_52, Deschain\_53
- Track 12 : Lyell\_52, Necrophoxinus\_54
- Track 13 : Mistmere\_45
- Track 14 : WaterT\_38, BarnCat\_33, Lifes\_35, LeeroyJenkins\_39, Cassita\_39
- Track 15 : CN1A\_45
- Track 16 : CMP1\_27

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

The start number called the most often in the published annotations is 2, it was called in 31 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ASegato\_51, Alleb\_45, BarnCat\_33, CMP1\_27, Casablanacas\_53, Cassita\_39, DejaVu\_48, Deschain\_53, DustyDino\_55, Erenyeager\_52, Fork\_48, HollowPurple\_53, Hortus1\_44, Hubbs\_47, Issa7\_51, Jacko\_46, LeeroyJenkins\_39, Lifes\_35, Lupine\_45, Lyell\_52, Mistmere\_45, Musetta\_52, Necrophoxinus\_54, OlinDD\_44, Pavlo\_46, PhillyPhilly\_46, Pioneer3\_44, Platte\_44, Roman\_47,

RunningBrook\_53, Saradis\_47, Shroomer\_55, Solimine\_47, SteakFry\_51, StevieWelch\_52, Tandem\_44, Uterion\_49, WaterT\_38, Welcome\_53, Wolfstar\_48, Yuma\_51,

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

- 

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

- CN1A\_45,

### Summary by start number:

Start 2:

- Found in 41 of 42 ( 97.6% ) of genes in pham
- Manual Annotations of this start: 31 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASegato\_51 (ED2), Alleb\_45 (ED1), BarnCat\_33 (GB), CMP1\_27 (singleton), Casablanacas\_53 (ED2), Cassita\_39 (GB), DejaVu\_48 (ED1), Deschain\_53 (ED2), DustyDino\_55 (ED2), Erenyeager\_52 (ED2), Fork\_48 (ED2), HollowPurple\_53 (ED2), Hortus1\_44 (ED1), Hubbs\_47 (ED1), Issa7\_51 (ED2), Jacko\_46 (ED1), LeeroyJenkins\_39 (GB), Lifes\_35 (GB), Lupine\_45 (ED1), Lyell\_52 (ED2), Mistmere\_45 (ED3), Musetta\_52 (ED2), Necrophoxinus\_54 (ED2), OlinDD\_44 (ED1), Pavlo\_46 (ED1), PhillyPhilly\_46 (ED1), Pioneer3\_44 (ED1), Platte\_44 (ED1), Roman\_47 (ED1), RunningBrook\_53 (ED2), Saradis\_47 (ED1), Shroomer\_55 (ED2), Solimine\_47 (ED1), SteakFry\_51 (ED2), StevieWelch\_52 (ED2), Tandem\_44 (ED1), Uterion\_49 (ED1), WaterT\_38 (GB), Welcome\_53 (ED2), Wolfstar\_48 (ED), Yuma\_51 (ED2),

Start 3:

- Found in 1 of 42 ( 2.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CN1A\_45 (singleton),

### Summary by clusters:

There are 6 clusters represented in this pham: singleton, ED, ED2, ED3, ED1, GB,

Info for manual annotations of cluster ED:

- Start number 2 was manually annotated 1 time for cluster ED.

Info for manual annotations of cluster ED1:

- Start number 2 was manually annotated 13 times for cluster ED1.

Info for manual annotations of cluster ED2:

- Start number 2 was manually annotated 12 times for cluster ED2.

Info for manual annotations of cluster GB:

- Start number 2 was manually annotated 5 times for cluster GB.

**Gene Information:**

Gene: ASegato\_51 Start: 23981, Stop: 24541, Start Num: 2

Candidate Starts for ASegato\_51:

(Start: 2 @23981 has 31 MA's), (20, 24314), (22, 24341), (26, 24404), (28, 24422), (29, 24425), (36, 24524),

Gene: Alleb\_45 Start: 23042, Stop: 23599, Start Num: 2

Candidate Starts for Alleb\_45:

(Start: 2 @23042 has 31 MA's), (18, 23345), (21, 23396), (28, 23480), (34, 23543), (35, 23570),

Gene: BarnCat\_33 Start: 17290, Stop: 17856, Start Num: 2

Candidate Starts for BarnCat\_33:

(Start: 2 @17290 has 31 MA's), (15, 17551), (23, 17665), (24, 17701), (28, 17737), (33, 17788),

Gene: CMP1\_27 Start: 22546, Stop: 23133, Start Num: 2

Candidate Starts for CMP1\_27:

(Start: 2 @22546 has 31 MA's), (4, 22585), (9, 22678), (11, 22765), (12, 22777), (17, 22852), (26, 22996), (27, 23008), (31, 23041), (32, 23047),

Gene: CN1A\_45 Start: 33391, Stop: 32879, Start Num: 3

Candidate Starts for CN1A\_45:

(3, 33391), (8, 33286), (10, 33238), (16, 33136), (19, 33097), (23, 33043), (25, 33016), (30, 32986), (36, 32893),

Gene: Casablancas\_53 Start: 24069, Stop: 24629, Start Num: 2

Candidate Starts for Casablancas\_53:

(Start: 2 @24069 has 31 MA's), (20, 24402), (22, 24429), (26, 24492), (28, 24510), (29, 24513), (36, 24612),

Gene: Cassita\_39 Start: 19666, Stop: 20232, Start Num: 2

Candidate Starts for Cassita\_39:

(Start: 2 @19666 has 31 MA's), (15, 19927), (23, 20041), (24, 20077), (28, 20113), (33, 20164),

Gene: DejaVu\_48 Start: 23251, Stop: 23808, Start Num: 2

Candidate Starts for DejaVu\_48:

(Start: 2 @23251 has 31 MA's), (7, 23347), (14, 23479), (21, 23605), (26, 23671), (28, 23689), (31, 23716), (34, 23752), (35, 23779),

Gene: Deschain\_53 Start: 24733, Stop: 25293, Start Num: 2

Candidate Starts for Deschain\_53:

(Start: 2 @24733 has 31 MA's), (20, 25066), (22, 25093), (26, 25156), (28, 25174), (29, 25177), (36, 25276),

Gene: DustyDino\_55 Start: 24925, Stop: 25485, Start Num: 2

Candidate Starts for DustyDino\_55:

(Start: 2 @24925 has 31 MA's), (20, 25258), (22, 25285), (23, 25294), (26, 25348), (28, 25366), (29, 25369), (36, 25468),

Gene: Erenyeager\_52 Start: 24319, Stop: 24879, Start Num: 2

Candidate Starts for Erenyeager\_52:

(Start: 2 @24319 has 31 MA's), (20, 24652), (22, 24679), (26, 24742), (28, 24760), (29, 24763), (36, 24862),

Gene: Fork\_48 Start: 23634, Stop: 24194, Start Num: 2  
Candidate Starts for Fork\_48:  
(Start: 2 @23634 has 31 MA's), (20, 23967), (22, 23994), (26, 24057), (28, 24075), (29, 24078), (36, 24177),

Gene: HollowPurple\_53 Start: 24188, Stop: 24748, Start Num: 2  
Candidate Starts for HollowPurple\_53:  
(Start: 2 @24188 has 31 MA's), (20, 24521), (22, 24548), (23, 24557), (26, 24611), (28, 24629), (29, 24632), (36, 24731),

Gene: Hortus1\_44 Start: 23032, Stop: 23589, Start Num: 2  
Candidate Starts for Hortus1\_44:  
(Start: 2 @23032 has 31 MA's), (18, 23335), (21, 23386), (28, 23470), (34, 23533), (35, 23560),

Gene: Hubbs\_47 Start: 23463, Stop: 24020, Start Num: 2  
Candidate Starts for Hubbs\_47:  
(Start: 2 @23463 has 31 MA's), (7, 23559), (14, 23691), (18, 23766), (21, 23817), (26, 23883), (28, 23901), (31, 23928), (34, 23964), (35, 23991),

Gene: Issa7\_51 Start: 23636, Stop: 24196, Start Num: 2  
Candidate Starts for Issa7\_51:  
(Start: 2 @23636 has 31 MA's), (20, 23969), (22, 23996), (23, 24005), (26, 24059), (28, 24077), (29, 24080), (36, 24179),

Gene: Jacko\_46 Start: 21227, Stop: 21784, Start Num: 2  
Candidate Starts for Jacko\_46:  
(Start: 2 @21227 has 31 MA's), (5, 21269), (7, 21323), (10, 21398), (13, 21449), (18, 21530), (21, 21581), (26, 21647), (28, 21665), (31, 21692), (34, 21728), (35, 21755), (36, 21767),

Gene: LeeroyJenkins\_39 Start: 19597, Stop: 20163, Start Num: 2  
Candidate Starts for LeeroyJenkins\_39:  
(Start: 2 @19597 has 31 MA's), (15, 19858), (23, 19972), (24, 20008), (28, 20044), (33, 20095),

Gene: Lifes\_35 Start: 17321, Stop: 17887, Start Num: 2  
Candidate Starts for Lifes\_35:  
(Start: 2 @17321 has 31 MA's), (15, 17582), (23, 17696), (24, 17732), (28, 17768), (33, 17819),

Gene: Lupine\_45 Start: 22665, Stop: 23222, Start Num: 2  
Candidate Starts for Lupine\_45:  
(Start: 2 @22665 has 31 MA's), (7, 22761), (14, 22893), (21, 23019), (26, 23085), (28, 23103), (31, 23130), (34, 23166), (35, 23193),

Gene: Lyell\_52 Start: 24238, Stop: 24798, Start Num: 2  
Candidate Starts for Lyell\_52:  
(Start: 2 @24238 has 31 MA's), (20, 24571), (22, 24598), (26, 24661), (28, 24679), (29, 24682), (36, 24781),

Gene: Mistmere\_45 Start: 22106, Stop: 22669, Start Num: 2  
Candidate Starts for Mistmere\_45:  
(Start: 2 @22106 has 31 MA's), (20, 22442), (26, 22532), (28, 22550), (29, 22553), (36, 22652),

Gene: Musetta\_52 Start: 24352, Stop: 24912, Start Num: 2

Candidate Starts for Musetta\_52:

(Start: 2 @24352 has 31 MA's), (20, 24685), (22, 24712), (23, 24721), (26, 24775), (28, 24793), (29, 24796), (36, 24895),

Gene: Necrophoxinus\_54 Start: 24933, Stop: 25493, Start Num: 2

Candidate Starts for Necrophoxinus\_54:

(Start: 2 @24933 has 31 MA's), (20, 25266), (22, 25293), (26, 25356), (28, 25374), (29, 25377), (36, 25476),

Gene: OlinDD\_44 Start: 23031, Stop: 23588, Start Num: 2

Candidate Starts for OlinDD\_44:

(Start: 2 @23031 has 31 MA's), (18, 23334), (21, 23385), (28, 23469), (34, 23532), (35, 23559),

Gene: Pavlo\_46 Start: 23310, Stop: 23867, Start Num: 2

Candidate Starts for Pavlo\_46:

(Start: 2 @23310 has 31 MA's), (7, 23406), (14, 23538), (18, 23613), (21, 23664), (26, 23730), (28, 23748), (31, 23775), (34, 23811), (35, 23838),

Gene: PhillyPhilly\_46 Start: 22844, Stop: 23401, Start Num: 2

Candidate Starts for PhillyPhilly\_46:

(1, 22841), (Start: 2 @22844 has 31 MA's), (7, 22940), (14, 23072), (18, 23147), (21, 23198), (26, 23264), (28, 23282), (31, 23309), (34, 23345), (35, 23372),

Gene: Pioneer3\_44 Start: 23039, Stop: 23596, Start Num: 2

Candidate Starts for Pioneer3\_44:

(Start: 2 @23039 has 31 MA's), (18, 23342), (21, 23393), (28, 23477), (34, 23540), (35, 23567),

Gene: Platte\_44 Start: 22824, Stop: 23381, Start Num: 2

Candidate Starts for Platte\_44:

(Start: 2 @22824 has 31 MA's), (18, 23127), (21, 23178), (28, 23262), (34, 23325), (35, 23352),

Gene: Roman\_47 Start: 23311, Stop: 23868, Start Num: 2

Candidate Starts for Roman\_47:

(Start: 2 @23311 has 31 MA's), (7, 23407), (14, 23539), (21, 23665), (26, 23731), (28, 23749), (29, 23752), (31, 23776), (34, 23812), (35, 23839),

Gene: RunningBrook\_53 Start: 24925, Stop: 25485, Start Num: 2

Candidate Starts for RunningBrook\_53:

(Start: 2 @24925 has 31 MA's), (20, 25258), (22, 25285), (23, 25294), (26, 25348), (28, 25366), (29, 25369), (36, 25468),

Gene: Saradis\_47 Start: 22903, Stop: 23460, Start Num: 2

Candidate Starts for Saradis\_47:

(Start: 2 @22903 has 31 MA's), (7, 22999), (14, 23131), (21, 23257), (26, 23323), (28, 23341), (31, 23368), (34, 23404), (35, 23431),

Gene: Shroomer\_55 Start: 24465, Stop: 25028, Start Num: 2

Candidate Starts for Shroomer\_55:

(Start: 2 @24465 has 31 MA's), (20, 24801), (22, 24828), (26, 24891), (28, 24909), (29, 24912), (36, 25011),

Gene: Solimine\_47 Start: 23317, Stop: 23874, Start Num: 2

Candidate Starts for Solimine\_47:

(Start: 2 @23317 has 31 MA's), (7, 23413), (14, 23545), (18, 23620), (21, 23671), (26, 23737), (28, 23755), (31, 23782), (34, 23818), (35, 23845),

Gene: SteakFry\_51 Start: 24188, Stop: 24748, Start Num: 2

Candidate Starts for SteakFry\_51:

(Start: 2 @24188 has 31 MA's), (20, 24521), (22, 24548), (23, 24557), (26, 24611), (28, 24629), (29, 24632), (36, 24731),

Gene: StevieWelch\_52 Start: 24320, Stop: 24880, Start Num: 2

Candidate Starts for StevieWelch\_52:

(Start: 2 @24320 has 31 MA's), (20, 24653), (22, 24680), (26, 24743), (28, 24761), (29, 24764), (36, 24863),

Gene: Tandem\_44 Start: 22978, Stop: 23535, Start Num: 2

Candidate Starts for Tandem\_44:

(Start: 2 @22978 has 31 MA's), (18, 23281), (21, 23332), (28, 23416), (34, 23479), (35, 23506),

Gene: Uterion\_49 Start: 23412, Stop: 23969, Start Num: 2

Candidate Starts for Uterion\_49:

(Start: 2 @23412 has 31 MA's), (7, 23508), (14, 23640), (18, 23715), (21, 23766), (26, 23832), (28, 23850), (29, 23853), (31, 23877), (34, 23913), (35, 23940),

Gene: WaterT\_38 Start: 19410, Stop: 19976, Start Num: 2

Candidate Starts for WaterT\_38:

(Start: 2 @19410 has 31 MA's), (15, 19671), (23, 19785), (24, 19821), (28, 19857), (33, 19908),

Gene: Welcome\_53 Start: 24337, Stop: 24897, Start Num: 2

Candidate Starts for Welcome\_53:

(Start: 2 @24337 has 31 MA's), (20, 24670), (22, 24697), (23, 24706), (26, 24760), (28, 24778), (29, 24781), (36, 24880),

Gene: Wolfstar\_48 Start: 23218, Stop: 23775, Start Num: 2

Candidate Starts for Wolfstar\_48:

(Start: 2 @23218 has 31 MA's), (6, 23281), (7, 23314), (21, 23572), (22, 23575), (23, 23584), (28, 23656), (29, 23659), (31, 23683), (34, 23719), (35, 23746), (36, 23758),

Gene: Yuma\_51 Start: 24252, Stop: 24812, Start Num: 2

Candidate Starts for Yuma\_51:

(Start: 2 @24252 has 31 MA's), (20, 24585), (22, 24612), (26, 24675), (28, 24693), (29, 24696), (36, 24795),