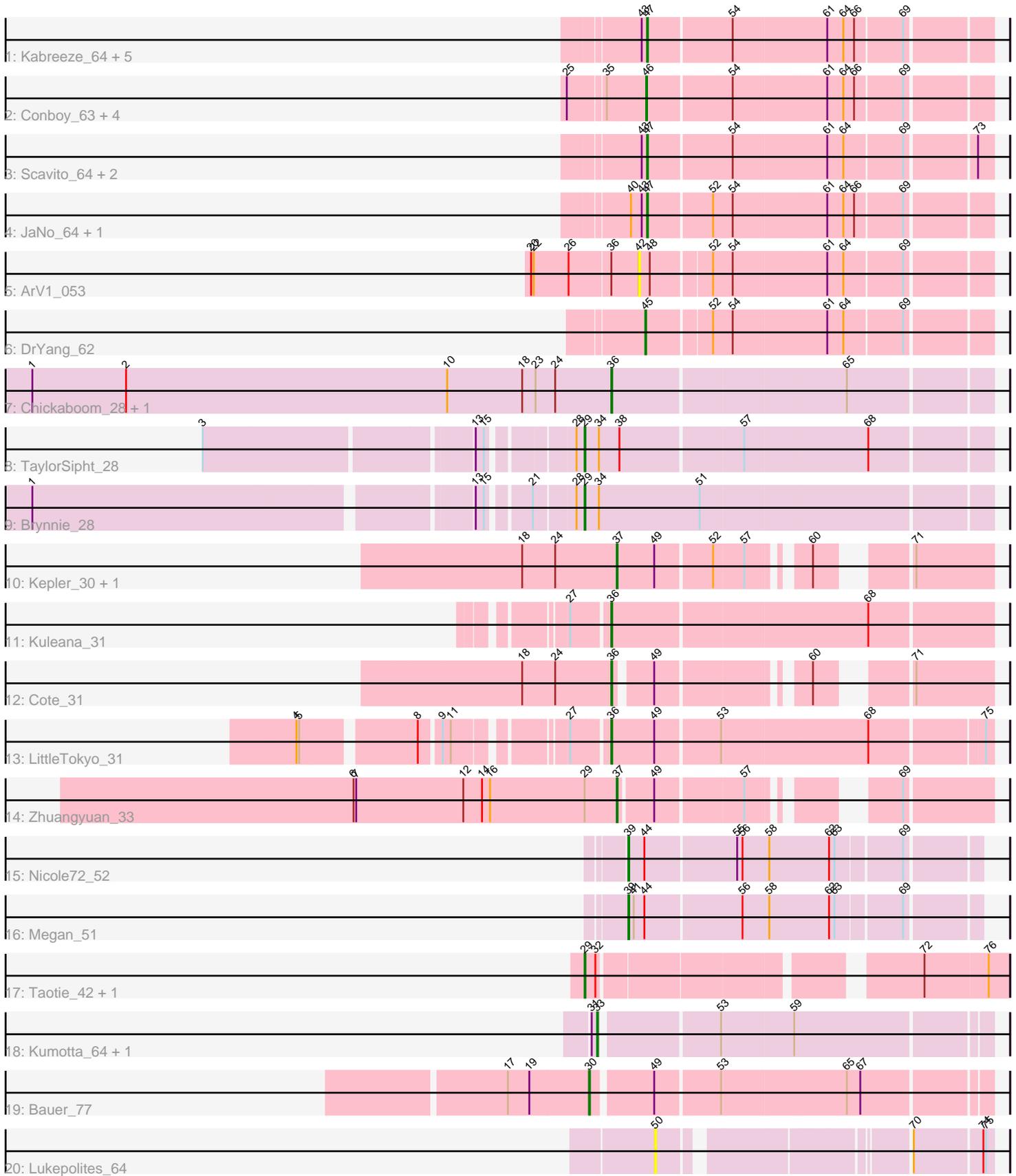# Pham 291351

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 291351 Report

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

Pham number 291351 has 36 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Kabreeze_64, Chocolat_64, Chubster_65, MoyaNatalis_64, HumptyDumpty_64, Linus_64
• Track 2 : Conboy_63, PrincessTrina_64, Chipper1996_640, Tophat_64, EdgarPoe_63
• Track 3 : Scavito_64, RosiePosie_63, JayCookie_65
• Track 4 : JaNo_64, Mordred_64
• Track 5 : ArV1_053
• Track 6 : DrYang_62
• Track 7 : Chickaboom_28, WileyE_28
• Track 8 : TaylorSipht_28
• Track 9 : Brynnie_28
• Track 10 : Kepler_30, Daob_31
• Track 11 : Kuleana_31
• Track 12 : Cote_31
• Track 13 : LittleTokyo_31
• Track 14 : Zhuangyuan_33
• Track 15 : Nicole72_52
• Track 16 : Megan_51
• Track 17 : Taotie_42, PSonyx_44
• Track 18 : Kumotta_64, MargaretKali_60
• Track 19 : Bauer_77
• Track 20 : Lukepolites_64

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

The start number called the most often in the published annotations is 47, it was called in 10 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Chocolat_64, Chubster_65, HumptyDumpty_64, JaNo_64, JayCookie_65, Kabreeze_64, Linus_64, Mordred_64, MoyaNatalis_64, RosiePosie_63, Scavito_64,

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

Genes that do not have the "Most Annotated" start:
• ArV1_053, Bauer_77, Brynnie_28, Chickaboom_28, Chipper1996_640, Conboy_63, Cote_31, Daob_31, DrYang_62, EdgarPoe_63, Kepler_30, Kuleana_31, Kumotta_64, LittleTokyo_31, Lukepolites_64, MargaretKali_60, Megan_51, Nicole72_52, PSonyx_44, PrincessTrina_64, Taotie_42, TaylorSipht_28, Tophat_64, WileyE_28, Zhuangyuan_33,

Summary by start number:

Start 29:
• Found in 5 of 36 (13.9%) of genes in pham
• Manual Annotations of this start: 3 of 32
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Brynnie_28 (AS1), PSonyx_44 (EQ), Taotie_42 (EQ), TaylorSipht_28 (AS1),

Start 30:
• Found in 1 of 36 (2.8%) of genes in pham
• Manual Annotations of this start: 1 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bauer_77 (FN),

Start 33:
• Found in 2 of 36 (5.6%) of genes in pham
• Manual Annotations of this start: 2 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kumotta_64 (FB), MargaretKali_60 (FB),

Start 36:
• Found in 6 of 36 (16.7%) of genes in pham
• Manual Annotations of this start: 5 of 32
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Chickaboom_28 (AS1), Cote_31 (AS2), Kuleana_31 (AS2), LittleTokyo_31 (AS2), WileyE_28 (AS1),

Start 37:
• Found in 3 of 36 (8.3%) of genes in pham
• Manual Annotations of this start: 3 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Daob_31 (AS2), Kepler_30 (AS2), Zhuangyuan_33 (AS2),

Start 39:
• Found in 2 of 36 (5.6%) of genes in pham
• Manual Annotations of this start: 2 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Megan_51 (EC), Nicole72_52 (EC),

Start 42:
• Found in 1 of 36 (2.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present

• Phage (with cluster) where this start called: ArV1_053 (AR),

Start 45:
• Found in 1 of 36 (2.8%) of genes in pham
• Manual Annotations of this start: 1 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DrYang_62 (AR),

Start 46:
• Found in 5 of 36 (13.9%) of genes in pham
• Manual Annotations of this start: 5 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chipper1996_640 (AR), Conboy_63 (AR), EdgarPoe_63 (AR), PrincessTrina_64 (AR), Tophat_64 (AR),

Start 47:
• Found in 11 of 36 (30.6%) of genes in pham
• Manual Annotations of this start: 10 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chocolat_64 (AR), Chubster_65 (AR), HumptyDumpty_64 (AR), JaNo_64 (AR), JayCookie_65 (AR), Kabreeze_64 (AR), Linus_64 (AR), Mordred_64 (AR), MoyaNatalis_64 (AR), RosiePosie_63 (AR), Scavito_64 (AR),

Start 50:
• Found in 1 of 36 (2.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lukepolites_64 (singleton),

Summary by clusters:

There are 8 clusters represented in this pham: AS2, AS1, singleton, EC, FB, AR, EQ, FN,

Info for manual annotations of cluster AR:
•Start number 45 was manually annotated 1 time for cluster AR.
•Start number 46 was manually annotated 5 times for cluster AR.
•Start number 47 was manually annotated 10 times for cluster AR.

Info for manual annotations of cluster AS1:
•Start number 29 was manually annotated 2 times for cluster AS1.
•Start number 36 was manually annotated 2 times for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 36 was manually annotated 3 times for cluster AS2.
•Start number 37 was manually annotated 3 times for cluster AS2.

Info for manual annotations of cluster EC:
•Start number 39 was manually annotated 2 times for cluster EC.

Info for manual annotations of cluster EQ:
•Start number 29 was manually annotated 1 time for cluster EQ.

Info for manual annotations of cluster FB:
•Start number 33 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FN:
•Start number 30 was manually annotated 1 time for cluster FN.

Gene Information:

Gene: ArV1_053 Start: 43867, Stop: 44235, Start Num: 42
Candidate Starts for ArV1_053:
(20, 43750), (22, 43753), (26, 43792), (Start: 36 @43837 has 5 MA's), (42, 43867), (48, 43879), (52, 43942), (54, 43963), (61, 44065), (64, 44083), (69, 44146),

Gene: Bauer_77 Start: 43198, Stop: 43614, Start Num: 30
Candidate Starts for Bauer_77:
(17, 43108), (19, 43132), (Start: 30 @43198 has 1 MA's), (49, 43261), (53, 43330), (65, 43465), (67, 43480),

Gene: Brynnie_28 Start: 21585, Stop: 21148, Start Num: 29
Candidate Starts for Brynnie_28:
(1, 22149), (13, 21684), (15, 21675), (21, 21636), (28, 21594), (Start: 29 @21585 has 3 MA's), (34, 21570), (51, 21459),

Gene: Chickaboom_28 Start: 20641, Stop: 20237, Start Num: 36
Candidate Starts for Chickaboom_28:
(1, 21286), (2, 21181), (10, 20824), (18, 20740), (23, 20725), (24, 20704), (Start: 36 @20641 has 5 MA's), (65, 20389),

Gene: Chipper1996_640 Start: 44938, Stop: 45300, Start Num: 46
Candidate Starts for Chipper1996_640:
(25, 44857), (35, 44896), (Start: 46 @44938 has 5 MA's), (54, 45028), (61, 45130), (64, 45148), (66, 45160), (69, 45211),

Gene: Chocolat_64 Start: 44963, Stop: 45325, Start Num: 47
Candidate Starts for Chocolat_64:
(43, 44957), (Start: 47 @44963 has 10 MA's), (54, 45053), (61, 45155), (64, 45173), (66, 45185), (69, 45236),

Gene: Chubster_65 Start: 45115, Stop: 45477, Start Num: 47
Candidate Starts for Chubster_65:
(43, 45109), (Start: 47 @45115 has 10 MA's), (54, 45205), (61, 45307), (64, 45325), (66, 45337), (69, 45388),

Gene: Conboy_63 Start: 44802, Stop: 45164, Start Num: 46
Candidate Starts for Conboy_63:
(25, 44721), (35, 44760), (Start: 46 @44802 has 5 MA's), (54, 44892), (61, 44994), (64, 45012), (66, 45024), (69, 45075),

Gene: Cote_31 Start: 21233, Stop: 20895, Start Num: 36
Candidate Starts for Cote_31:

(18, 21332), (24, 21296), (Start: 36 @21233 has 5 MA's), (49, 21197), (60, 21056), (71, 20981),

Gene: Daob_31 Start: 21245, Stop: 20901, Start Num: 37
Candidate Starts for Daob_31:
(18, 21350), (24, 21314), (Start: 37 @21245 has 3 MA's), (49, 21203), (52, 21143), (57, 21110), (60, 21062), (71, 20987),

Gene: DrYang_62 Start: 46373, Stop: 46732, Start Num: 45
Candidate Starts for DrYang_62:
(Start: 45 @46373 has 1 MA's), (52, 46439), (54, 46460), (61, 46562), (64, 46580), (69, 46643),

Gene: EdgarPoe_63 Start: 44802, Stop: 45164, Start Num: 46
Candidate Starts for EdgarPoe_63:
(25, 44721), (35, 44760), (Start: 46 @44802 has 5 MA's), (54, 44892), (61, 44994), (64, 45012), (66, 45024), (69, 45075),

Gene: HumptyDumpty_64 Start: 44902, Stop: 45264, Start Num: 47
Candidate Starts for HumptyDumpty_64:
(43, 44896), (Start: 47 @44902 has 10 MA's), (54, 44992), (61, 45094), (64, 45112), (66, 45124), (69, 45175),

Gene: JaNo_64 Start: 45024, Stop: 45386, Start Num: 47
Candidate Starts for JaNo_64:
(40, 45006), (43, 45018), (Start: 47 @45024 has 10 MA's), (52, 45093), (54, 45114), (61, 45216), (64, 45234), (66, 45246), (69, 45297),

Gene: JayCookie_65 Start: 45374, Stop: 45736, Start Num: 47
Candidate Starts for JayCookie_65:
(43, 45368), (Start: 47 @45374 has 10 MA's), (54, 45464), (61, 45566), (64, 45584), (69, 45647), (73, 45719),

Gene: Kabreeze_64 Start: 44981, Stop: 45343, Start Num: 47
Candidate Starts for Kabreeze_64:
(43, 44975), (Start: 47 @44981 has 10 MA's), (54, 45071), (61, 45173), (64, 45191), (66, 45203), (69, 45254),

Gene: Kepler_30 Start: 21194, Stop: 20850, Start Num: 37
Candidate Starts for Kepler_30:
(18, 21299), (24, 21263), (Start: 37 @21194 has 3 MA's), (49, 21152), (52, 21092), (57, 21059), (60, 21011), (71, 20936),

Gene: Kuleana_31 Start: 21163, Stop: 20753, Start Num: 36
Candidate Starts for Kuleana_31:
(27, 21199), (Start: 36 @21163 has 5 MA's), (68, 20887),

Gene: Kumotta_64 Start: 35474, Stop: 35881, Start Num: 33
Candidate Starts for Kumotta_64:
(31, 35468), (Start: 33 @35474 has 2 MA's), (53, 35597), (59, 35675),

Gene: Linus_64 Start: 45104, Stop: 45466, Start Num: 47
Candidate Starts for Linus_64:
(43, 45098), (Start: 47 @45104 has 10 MA's), (54, 45194), (61, 45296), (64, 45314), (66, 45326), (69, 45377),

Gene: LittleTokyo_31 Start: 21283, Stop: 20879, Start Num: 36
Candidate Starts for LittleTokyo_31:
(4, 21571), (5, 21568), (8, 21451), (9, 21430), (11, 21421), (27, 21319), (Start: 36 @21283 has 5 MA's),
(49, 21235), (53, 21166), (68, 21007), (75, 20887),

Gene: Lukepolites_64 Start: 42768, Stop: 42448, Start Num: 50
Candidate Starts for Lukepolites_64:
(50, 42768), (70, 42531), (74, 42459), (75, 42456),

Gene: MargaretKali_60 Start: 34092, Stop: 34499, Start Num: 33
Candidate Starts for MargaretKali_60:
(31, 34086), (Start: 33 @34092 has 2 MA's), (53, 34215), (59, 34293),

Gene: Megan_51 Start: 38900, Stop: 39268, Start Num: 39
Candidate Starts for Megan_51:
(Start: 39 @38900 has 2 MA's), (41, 38906), (44, 38915), (56, 39020), (58, 39050), (62, 39116), (63, 39122), (69, 39191),

Gene: Mordred_64 Start: 45018, Stop: 45380, Start Num: 47
Candidate Starts for Mordred_64:
(40, 45000), (43, 45012), (Start: 47 @45018 has 10 MA's), (52, 45087), (54, 45108), (61, 45210), (64, 45228), (66, 45240), (69, 45291),

Gene: MoyaNatalis_64 Start: 44950, Stop: 45312, Start Num: 47
Candidate Starts for MoyaNatalis_64:
(43, 44944), (Start: 47 @44950 has 10 MA's), (54, 45040), (61, 45142), (64, 45160), (66, 45172), (69, 45223),

Gene: Nicole72_52 Start: 39527, Stop: 39895, Start Num: 39
Candidate Starts for Nicole72_52:
(Start: 39 @39527 has 2 MA's), (44, 39542), (55, 39641), (56, 39647), (58, 39677), (62, 39743), (63, 39749), (69, 39818),

Gene: PSonyx_44 Start: 33480, Stop: 33061, Start Num: 29
Candidate Starts for PSonyx_44:
(Start: 29 @33480 has 3 MA's), (32, 33468), (72, 33153), (76, 33084),

Gene: PrincessTrina_64 Start: 45006, Stop: 45368, Start Num: 46
Candidate Starts for PrincessTrina_64:
(25, 44925), (35, 44964), (Start: 46 @45006 has 5 MA's), (54, 45096), (61, 45198), (64, 45216), (66, 45228), (69, 45279),

Gene: RosiePosie_63 Start: 44640, Stop: 45002, Start Num: 47
Candidate Starts for RosiePosie_63:
(43, 44634), (Start: 47 @44640 has 10 MA's), (54, 44730), (61, 44832), (64, 44850), (69, 44913), (73, 44985),

Gene: Scavito_64 Start: 44915, Stop: 45277, Start Num: 47
Candidate Starts for Scavito_64:
(43, 44909), (Start: 47 @44915 has 10 MA's), (54, 45005), (61, 45107), (64, 45125), (69, 45188), (73, 45260),

Gene: Taotie_42 Start: 31071, Stop: 30652, Start Num: 29
Candidate Starts for Taotie_42:
(Start: 29 @31071 has 3 MA's), (32, 31059), (72, 30744), (76, 30675),

Gene: TaylorSipht_28 Start: 20580, Stop: 20149, Start Num: 29
Candidate Starts for TaylorSipht_28:
(3, 20964), (13, 20679), (15, 20670), (28, 20589), (Start: 29 @20580 has 3 MA's), (34, 20565), (38, 20544), (57, 20412), (68, 20277),

Gene: Tophat_64 Start: 44939, Stop: 45301, Start Num: 46
Candidate Starts for Tophat_64:
(25, 44858), (35, 44897), (Start: 46 @44939 has 5 MA's), (54, 45029), (61, 45131), (64, 45149), (66, 45161), (69, 45212),

Gene: WileyE_28 Start: 20641, Stop: 20237, Start Num: 36
Candidate Starts for WileyE_28:
(1, 21286), (2, 21181), (10, 20824), (18, 20740), (23, 20725), (24, 20704), (Start: 36 @20641 has 5 MA's), (65, 20389),

Gene: Zhuangyuan_33 Start: 22227, Stop: 21889, Start Num: 37
Candidate Starts for Zhuangyuan_33:
(6, 22515), (7, 22512), (12, 22395), (14, 22374), (16, 22365), (Start: 29 @22263 has 3 MA's), (Start: 37 @22227 has 3 MA's), (49, 22191), (57, 22098), (69, 21984),