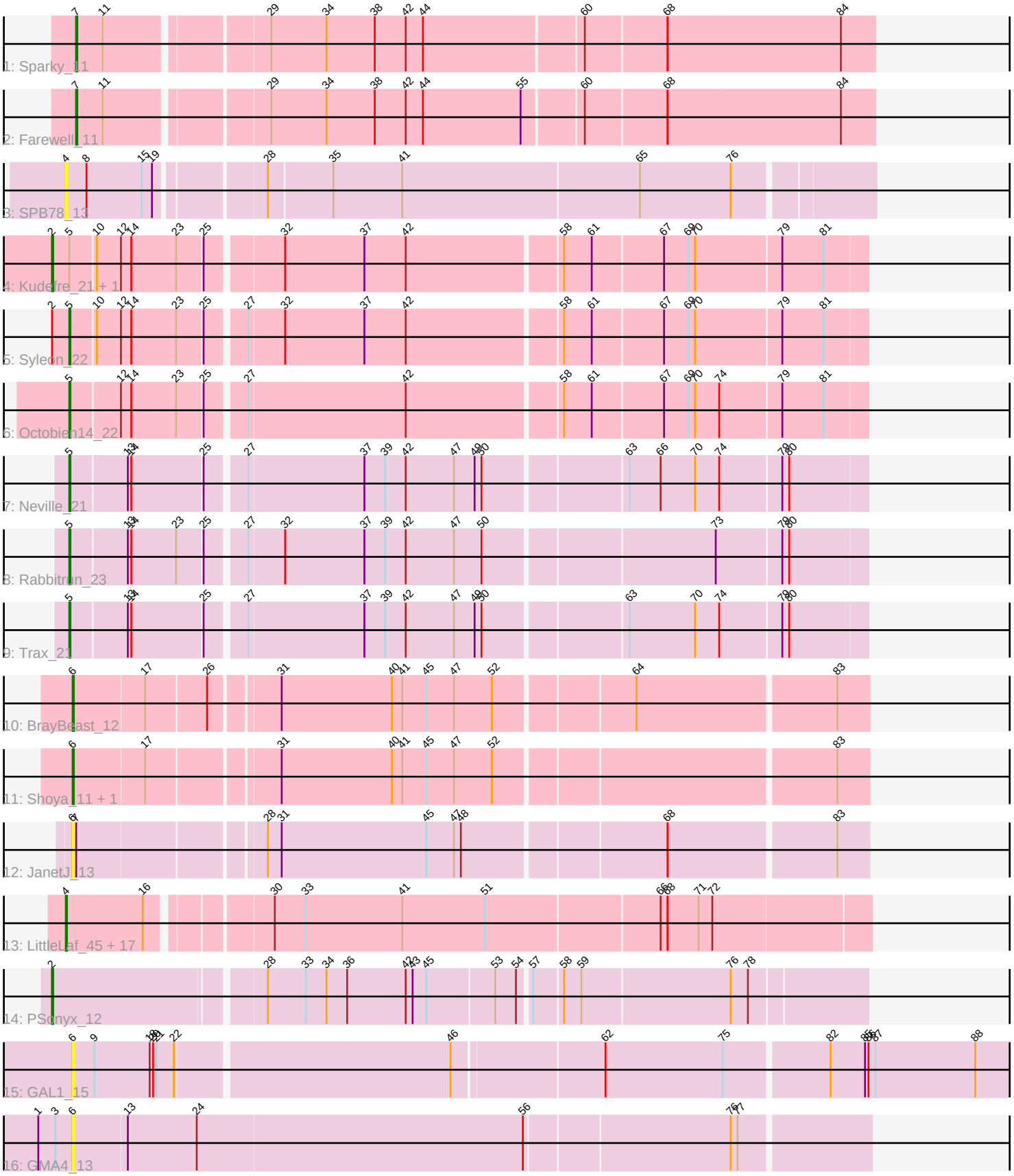
Pham 163781


1: Sparky_11
2: Farewell_11
3: SPB78_13
4: Kudefre_21 + 1
5: Syleon_22
6: Octobien14_22
7: Neville_21
8: Rabbitrun_23
9: Trax_21
10: BrayBeast_12
11: Shoya_11 + 1
12: JanetJ_13
13: LittleLeaf_45 + 17
14: PSonyx_12
15: GAL1_15
16: GMA4_13

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 163781 Report

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

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 163781 has 35 members, 6 are drafts.

Phages represented in each track:
- Track 1 : Sparky_11
- Track 2 : Farewell_11
- Track 3 : SPB78_13
- Track 4 : Kudefre_21, Sephiroth_22
- Track 5 : Syleon_22
- Track 6 : Octobien14_22
- Track 7 : Neville_21
- Track 8 : Rabbitrun_23
- Track 9 : Trax_21
- Track 10 : BrayBeast_12
- Track 11 : Shoya_11, Sarge_12
- Track 12 : JanetJ_13
- Track 13 : LittleLaf_45, Corazon_43, Clarkson_46, Pringar_45, Marvin_43, Lilbit_46, VasuNzinga_45, Huphlepuff_47, Blackbeetle_45, Gattaca_44, MosMoris_43, Caprice_42, JoieB_46, Raela_45, Tesla_44, RedRaider77_45, Poise_45, Beelzebub_49
- Track 14 : PSonyx_12
- Track 15 : GAL1_15
- Track 16 : GMA4_13

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 16 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Beelzebub_49, Blackbeetle_45, Caprice_42, Clarkson_46, Corazon_43, Gattaca_44, Huphlepuff_47, JoieB_46, Lilbit_46, LittleLaf_45, Marvin_43, MosMoris_43, Poise_45, Pringar_45, Raela_45, RedRaider77_45, SPB78_13, Tesla_44, VasuNzinga_45,

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

Genes that do not have the "Most Annotated" start:
• BrayBeast_12, Farewell_11, GAL1_15, GMA4_13, JanetJ_13, Kudefre_21, Neville_21, Octobien14_22, PSonyx_12, Rabbitrun_23, Sarge_12, Sephiroth_22, Shoya_11, Sparky_11, Syleon_22, Trax_21,

Summary by start number:

Start 2:
• Found in 4 of 35 (11.4%) of genes in pham
• Manual Annotations of this start: 3 of 29
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Kudefre_21 (DU1), PSonyx_12 (singleton), Sephiroth_22 (DU1),

Start 4:
• Found in 19 of 35 (54.3%) of genes in pham
• Manual Annotations of this start: 16 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beelzebub_49 (S), Blackbeetle_45 (S), Caprice_42 (S), Clarkson_46 (S), Corazon_43 (S), Gattaca_44 (S), Huphlepuff_47 (S), JoieB_46 (S), Lilbit_46 (S), LittleLaf_45 (S), Marvin_43 (S), MosMoris_43 (S), Poise_45 (S), Pringar_45 (S), Raela_45 (S), RedRaider77_45 (S), SPB78_13 (BA), Tesla_44 (S), VasuNzinga_45 (S),

Start 5:
• Found in 7 of 35 (20.0%) of genes in pham
• Manual Annotations of this start: 5 of 29
• Called 71.4% of time when present
• Phage (with cluster) where this start called: Neville_21 (DU2), Octobien14_22 (DU1), Rabbitrun_23 (DU2), Syleon_22 (DU1), Trax_21 (DU2),

Start 6:
• Found in 6 of 35 (17.1%) of genes in pham
• Manual Annotations of this start: 3 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BrayBeast_12 (FB), GAL1_15 (singleton), GMA4_13 (singleton), JanetJ_13 (FO), Sarge_12 (FB), Shoya_11 (FB),

Start 7:
• Found in 3 of 35 (8.6%) of genes in pham
• Manual Annotations of this start: 2 of 29
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Farewell_11 (AF), Sparky_11 (AF),

Summary by clusters:

There are 8 clusters represented in this pham: singleton, BA, AF, S, FB, DU1, DU2, FO,

Info for manual annotations of cluster AF:
•Start number 7 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster DU1:
•Start number 2 was manually annotated 2 times for cluster DU1.
•Start number 5 was manually annotated 2 times for cluster DU1.

Info for manual annotations of cluster DU2:
•Start number 5 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster FB:
•Start number 6 was manually annotated 3 times for cluster FB.

Info for manual annotations of cluster S:
•Start number 4 was manually annotated 16 times for cluster S.

Gene Information:

Gene: Beelzebub_49 Start: 19342, Stop: 20007, Start Num: 4
Candidate Starts for Beelzebub_49:
(Start: 4 @19342 has 16 MA's), (16, 19408), (30, 19501), (33, 19528), (41, 19612), (51, 19684), (66, 19831), (68, 19837), (71, 19864), (72, 19876),

Gene: Blackbeetle_45 Start: 18361, Stop: 19026, Start Num: 4
Candidate Starts for Blackbeetle_45:
(Start: 4 @18361 has 16 MA's), (16, 18427), (30, 18520), (33, 18547), (41, 18631), (51, 18703), (66, 18850), (68, 18856), (71, 18883), (72, 18895),

Gene: BrayBeast_12 Start: 8007, Stop: 8660, Start Num: 6
Candidate Starts for BrayBeast_12:
(Start: 6 @8007 has 3 MA's), (17, 8067), (26, 8118), (31, 8172), (40, 8268), (41, 8277), (45, 8298), (47, 8322), (52, 8355), (64, 8469), (83, 8634),

Gene: Caprice_42 Start: 18431, Stop: 19096, Start Num: 4
Candidate Starts for Caprice_42:
(Start: 4 @18431 has 16 MA's), (16, 18497), (30, 18590), (33, 18617), (41, 18701), (51, 18773), (66, 18920), (68, 18926), (71, 18953), (72, 18965),

Gene: Clarkson_46 Start: 19043, Stop: 19708, Start Num: 4
Candidate Starts for Clarkson_46:
(Start: 4 @19043 has 16 MA's), (16, 19109), (30, 19202), (33, 19229), (41, 19313), (51, 19385), (66, 19532), (68, 19538), (71, 19565), (72, 19577),

Gene: Corazon_43 Start: 18996, Stop: 19661, Start Num: 4
Candidate Starts for Corazon_43:
(Start: 4 @18996 has 16 MA's), (16, 19062), (30, 19155), (33, 19182), (41, 19266), (51, 19338), (66, 19485), (68, 19491), (71, 19518), (72, 19530),

Gene: Farewell_11 Start: 8044, Stop: 8706, Start Num: 7

Candidate Starts for Farewell_11:
(Start: 7 @8044 has 2 MA's), (11, 8065), (29, 8194), (34, 8242), (38, 8284), (42, 8311), (44, 8326), (55, 8410), (60, 8458), (68, 8527), (84, 8677),

Gene: GAL1_15 Start: 9773, Stop: 10699, Start Num: 6
Candidate Starts for GAL1_15:
(Start: 6 @9773 has 3 MA's), (9, 9791), (18, 9839), (20, 9842), (21, 9845), (22, 9860), (46, 10091), (62, 10217), (75, 10319), (82, 10406), (85, 10436), (86, 10439), (87, 10445), (88, 10532),

Gene: GMA4_13 Start: 8955, Stop: 9626, Start Num: 6
Candidate Starts for GMA4_13:
(1, 8925), (3, 8940), (Start: 6 @8955 has 3 MA's), (13, 9000), (24, 9060), (56, 9342), (76, 9513), (77, 9519),

Gene: Gattaca_44 Start: 18223, Stop: 18888, Start Num: 4
Candidate Starts for Gattaca_44:
(Start: 4 @18223 has 16 MA's), (16, 18289), (30, 18382), (33, 18409), (41, 18493), (51, 18565), (66, 18712), (68, 18718), (71, 18745), (72, 18757),

Gene: Huphlepuff_47 Start: 18848, Stop: 19513, Start Num: 4
Candidate Starts for Huphlepuff_47:
(Start: 4 @18848 has 16 MA's), (16, 18914), (30, 19007), (33, 19034), (41, 19118), (51, 19190), (66, 19337), (68, 19343), (71, 19370), (72, 19382),

Gene: JanetJ_13 Start: 8928, Stop: 9581, Start Num: 6
Candidate Starts for JanetJ_13:
(Start: 6 @8928 has 3 MA's), (Start: 7 @8931 has 2 MA's), (28, 9081), (31, 9093), (45, 9219), (47, 9243), (48, 9249), (68, 9417), (83, 9555),

Gene: JoieB_46 Start: 19067, Stop: 19732, Start Num: 4
Candidate Starts for JoieB_46:
(Start: 4 @19067 has 16 MA's), (16, 19133), (30, 19226), (33, 19253), (41, 19337), (51, 19409), (66, 19556), (68, 19562), (71, 19589), (72, 19601),

Gene: Kudefre_21 Start: 12302, Stop: 12976, Start Num: 2
Candidate Starts for Kudefre_21:
(Start: 2 @12302 has 3 MA's), (Start: 5 @12317 has 5 MA's), (10, 12338), (12, 12359), (14, 12368), (23, 12407), (25, 12428), (32, 12488), (37, 12557), (42, 12593), (58, 12722), (61, 12746), (67, 12806), (69, 12827), (70, 12833), (79, 12905), (81, 12941),

Gene: Lilbit_46 Start: 19044, Stop: 19709, Start Num: 4
Candidate Starts for Lilbit_46:
(Start: 4 @19044 has 16 MA's), (16, 19110), (30, 19203), (33, 19230), (41, 19314), (51, 19386), (66, 19533), (68, 19539), (71, 19566), (72, 19578),

Gene: LittleLaf_45 Start: 18773, Stop: 19438, Start Num: 4
Candidate Starts for LittleLaf_45:
(Start: 4 @18773 has 16 MA's), (16, 18839), (30, 18932), (33, 18959), (41, 19043), (51, 19115), (66, 19262), (68, 19268), (71, 19295), (72, 19307),

Gene: Marvin_43 Start: 19043, Stop: 19708, Start Num: 4
Candidate Starts for Marvin_43:

(Start: 4 @19043 has 16 MA's), (16, 19109), (30, 19202), (33, 19229), (41, 19313), (51, 19385), (66, 19532), (68, 19538), (71, 19565), (72, 19577),

Gene: MosMoris_43 Start: 18223, Stop: 18888, Start Num: 4
Candidate Starts for MosMoris_43:
(Start: 4 @18223 has 16 MA's), (16, 18289), (30, 18382), (33, 18409), (41, 18493), (51, 18565), (66, 18712), (68, 18718), (71, 18745), (72, 18757),

Gene: Neville_21 Start: 12158, Stop: 12817, Start Num: 5
Candidate Starts for Neville_21:
(Start: 5 @12158 has 5 MA's), (13, 12206), (14, 12209), (25, 12269), (27, 12299), (37, 12398), (39, 12416), (42, 12434), (47, 12476), (49, 12494), (50, 12500), (63, 12617), (66, 12644), (70, 12674), (74, 12695), (79, 12746), (80, 12752),

Gene: Octobien14_22 Start: 13362, Stop: 14021, Start Num: 5
Candidate Starts for Octobien14_22:
(Start: 5 @13362 has 5 MA's), (12, 13404), (14, 13413), (23, 13452), (25, 13473), (27, 13503), (42, 13638), (58, 13767), (61, 13791), (67, 13851), (69, 13872), (70, 13878), (74, 13899), (79, 13950), (81, 13986),

Gene: PSonyx_12 Start: 8868, Stop: 9539, Start Num: 2
Candidate Starts for PSonyx_12:
(Start: 2 @8868 has 3 MA's), (28, 9039), (33, 9072), (34, 9090), (36, 9108), (42, 9159), (43, 9165), (45, 9177), (53, 9234), (54, 9252), (57, 9261), (58, 9285), (59, 9300), (76, 9426), (78, 9441),

Gene: Poise_45 Start: 18361, Stop: 19026, Start Num: 4
Candidate Starts for Poise_45:
(Start: 4 @18361 has 16 MA's), (16, 18427), (30, 18520), (33, 18547), (41, 18631), (51, 18703), (66, 18850), (68, 18856), (71, 18883), (72, 18895),

Gene: Pringar_45 Start: 18673, Stop: 19338, Start Num: 4
Candidate Starts for Pringar_45:
(Start: 4 @18673 has 16 MA's), (16, 18739), (30, 18832), (33, 18859), (41, 18943), (51, 19015), (66, 19162), (68, 19168), (71, 19195), (72, 19207),

Gene: Rabbitrun_23 Start: 12721, Stop: 13380, Start Num: 5
Candidate Starts for Rabbitrun_23:
(Start: 5 @12721 has 5 MA's), (13, 12769), (14, 12772), (23, 12811), (25, 12832), (27, 12862), (32, 12892), (37, 12961), (39, 12979), (42, 12997), (47, 13039), (50, 13063), (73, 13255), (79, 13309), (80, 13315),

Gene: Raela_45 Start: 18916, Stop: 19581, Start Num: 4
Candidate Starts for Raela_45:
(Start: 4 @18916 has 16 MA's), (16, 18982), (30, 19075), (33, 19102), (41, 19186), (51, 19258), (66, 19405), (68, 19411), (71, 19438), (72, 19450),

Gene: RedRaider77_45 Start: 18817, Stop: 19482, Start Num: 4
Candidate Starts for RedRaider77_45:
(Start: 4 @18817 has 16 MA's), (16, 18883), (30, 18976), (33, 19003), (41, 19087), (51, 19159), (66, 19306), (68, 19312), (71, 19339), (72, 19351),

Gene: SPB78_13 Start: 8500, Stop: 9165, Start Num: 4
Candidate Starts for SPB78_13:

(Start: 4 @8500 has 16 MA's), (8, 8518), (15, 8566), (19, 8575), (28, 8659), (35, 8713), (41, 8773), (65, 8977), (76, 9055),

Gene: Sarge_12 Start: 7918, Stop: 8571, Start Num: 6
Candidate Starts for Sarge_12:
(Start: 6 @7918 has 3 MA's), (17, 7978), (31, 8083), (40, 8179), (41, 8188), (45, 8209), (47, 8233), (52, 8266), (83, 8545),

Gene: Sephiroth_22 Start: 12473, Stop: 13147, Start Num: 2
Candidate Starts for Sephiroth_22:
(Start: 2 @12473 has 3 MA's), (Start: 5 @12488 has 5 MA's), (10, 12509), (12, 12530), (14, 12539), (23, 12578), (25, 12599), (32, 12659), (37, 12728), (42, 12764), (58, 12893), (61, 12917), (67, 12977), (69, 12998), (70, 13004), (79, 13076), (81, 13112),

Gene: Shoya_11 Start: 7554, Stop: 8207, Start Num: 6
Candidate Starts for Shoya_11:
(Start: 6 @7554 has 3 MA's), (17, 7614), (31, 7719), (40, 7815), (41, 7824), (45, 7845), (47, 7869), (52, 7902), (83, 8181),

Gene: Sparky_11 Start: 8045, Stop: 8707, Start Num: 7
Candidate Starts for Sparky_11:
(Start: 7 @8045 has 2 MA's), (11, 8066), (29, 8195), (34, 8243), (38, 8285), (42, 8312), (44, 8327), (60, 8459), (68, 8528), (84, 8678),

Gene: Syleon_22 Start: 12411, Stop: 13070, Start Num: 5
Candidate Starts for Syleon_22:
(Start: 2 @12396 has 3 MA's), (Start: 5 @12411 has 5 MA's), (10, 12432), (12, 12453), (14, 12462), (23, 12501), (25, 12522), (27, 12552), (32, 12582), (37, 12651), (42, 12687), (58, 12816), (61, 12840), (67, 12900), (69, 12921), (70, 12927), (79, 12999), (81, 13035),

Gene: Tesla_44 Start: 18666, Stop: 19331, Start Num: 4
Candidate Starts for Tesla_44:
(Start: 4 @18666 has 16 MA's), (16, 18732), (30, 18825), (33, 18852), (41, 18936), (51, 19008), (66, 19155), (68, 19161), (71, 19188), (72, 19200),

Gene: Trax_21 Start: 12158, Stop: 12817, Start Num: 5
Candidate Starts for Trax_21:
(Start: 5 @12158 has 5 MA's), (13, 12206), (14, 12209), (25, 12269), (27, 12299), (37, 12398), (39, 12416), (42, 12434), (47, 12476), (49, 12494), (50, 12500), (63, 12617), (70, 12674), (74, 12695), (79, 12746), (80, 12752),

Gene: VasuNzinga_45 Start: 18250, Stop: 18915, Start Num: 4
Candidate Starts for VasuNzinga_45:
(Start: 4 @18250 has 16 MA's), (16, 18316), (30, 18409), (33, 18436), (41, 18520), (51, 18592), (66, 18739), (68, 18745), (71, 18772), (72, 18784),