Pham 347602


1: SPB78_8
2: Dalilpop_35 + 4
3: GTE8_19 + 1
4: NatB6_30 + 5
5: StarStruck_31 + 2
6: Buggaboo_31 + 4
7: Wheezy_30 + 3
8: Foxboro_31
9: Commandaria_32
10: Float294_32 + 4
11: RedRaider_37
12: WhoseManz_32 + 2
13: NadineRae_30 + 5
14: Fury_39 + 2
15: HomeFry_36
16: Polyyuki_34 + 4
17: Gagieri_34
18: MacGully_38
19: Darwin_21 + 7
20: P1201_33
21: Gallia_26
22: ChewyVIII_44

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 347602 Report

This analysis was run 11/14/26 on database version 672.

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 347602 has 65 members, 6 are drafts.

Phages represented in each track:
- Track 1 : SPB78_8
- Track 2 : Dalilpop_35, Flapper_34, GTE5_21, GRU1_20, Turuncu_34
- Track 3 : GTE8_19, KidneyBean_30
- Track 4 : NatB6_30, Jifall16_29, Kurt_30, Phomeo_29, Tracker_30, Emianna_30
- Track 5 : StarStruck_31, Outis_31, MerCougar_31
- Track 6 : Buggaboo_31, Kabluna_33, SuperSulley_31, Bonum_33, NosilaM_33
- Track 7 : Wheezy_30, NovumRegina_30, GrootJr_32, Arti_30
- Track 8 : Foxboro_31
- Track 9 : Commandaria_32
- Track 10 : Float294_32, Patio_33, Skysand_32, Lollipop1437_35, Ennea_36
- Track 11 : RedRaider_37
- Track 12 : WhoseManz_32, Marietta_32, Pemberton_33
- Track 13 : NadineRae_30, BiPauneto_33, IDyn_31, HubbaBubba_28, Sukkupi_32, Yndexa_32
- Track 14 : Fury_39, Pleakley_39, Scuba_39
- Track 15 : HomeFry_36
- Track 16 : Polyyuki_34, Braxoaddie_34, Maselop_34, Apiary_34, CoffeeBean_34
- Track 17 : Gagieri_34
- Track 18 : MacGully_38
- Track 19 : Darwin_21, Cruella_18, Zion_18, Stickynote_20, PeteyPab_17, C3PO_18, PotatoChip_18, Kimchi1738_18
- Track 20 : P1201_33
- Track 21 : Gallia_26
- Track 22 : ChewyVIII_44

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 40 of the 59 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Apiary_34, Arti_30, BiPauneto_33, Braxoaddie_34, CoffeeBean_34, Dalilpop_35, Emianna_30, Ennea_36, Flapper_34, Float294_32, Foxboro_31, Fury_39, GRU1_20, GTE5_21, Gagieri_34, GrootJr_32, HomeFry_36, HubbaBubba_28, IDyn_31, Jifall16_29, Kurt_30, Lollipop1437_35, MacGully_38, Marietta_32, Maselop_34, NadineRae_30, NatB6_30, NovumRegina_30, Patio_33, Pemberton_33, Phomeo_29, Pleakley_39, Polyyuki_34, RedRaider_37, Scuba_39, Skysand_32, Sukkupi_32, Tracker_30, Turuncu_34, Wheezy_30, WhoseManz_32, Yndexa_32,

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

Genes that do not have the "Most Annotated" start:
• Bonum_33, Buggaboo_31, C3PO_18, ChewyVIII_44, Commandaria_32, Cruella_18, Darwin_21, GTE8_19, Gallia_26, Kabluna_33, KidneyBean_30, Kimchi1738_18, MerCougar_31, NosilaM_33, Outis_31, P1201_33, PeteyPab_17, PotatoChip_18, SPB78_8, StarStruck_31, Stickynote_20, SuperSulley_31, Zion_18,

Summary by start number:

Start 4:
• Found in 42 of 65 (64.6%) of genes in pham
• Manual Annotations of this start: 40 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Apiary_34 (CR6), Arti_30 (CR2), BiPauneto_33 (CR4), Braxoaddie_34 (CR6), CoffeeBean_34 (CR6), Dalilpop_35 (CR1), Emianna_30 (CR2), Ennea_36 (CR3), Flapper_34 (CR1), Float294_32 (CR3), Foxboro_31 (CR2), Fury_39 (CR5), GRU1_20 (CR1), GTE5_21 (CR1), Gagieri_34 (CR6), GrootJr_32 (CR2), HomeFry_36 (CR5), HubbaBubba_28 (CR4), IDyn_31 (CR4), Jifall16_29 (CR2), Kurt_30 (CR2), Lollipop1437_35 (CR3), MacGully_38 (CR7), Marietta_32 (CR4), Maselop_34 (CR6), NadineRae_30 (CR4), NatB6_30 (CR2), NovumRegina_30 (CR2), Patio_33 (CR3), Pemberton_33 (CR4), Phomeo_29 (CR2), Pleakley_39 (CR5), Polyyuki_34 (CR6), RedRaider_37 (CR3), Scuba_39 (CR5), Skysand_32 (CR3), Sukkupi_32 (CR4), Tracker_30 (CR2), Turuncu_34 (CR1), Wheezy_30 (CR2), WhoseManz_32 (CR4), Yndexa_32 (CR4),

Start 5:
• Found in 10 of 65 (15.4%) of genes in pham
• Manual Annotations of this start: 9 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bonum_33 (CR2), Buggaboo_31 (CR2), GTE8_19 (CR2), Kabluna_33 (CR2), KidneyBean_30 (CR2), MerCougar_31 (CR2), NosilaM_33 (CR2), Outis_31 (CR2), StarStruck_31 (CR2), SuperSulley_31 (CR2),

Start 6:
• Found in 1 of 65 (1.5%) of genes in pham
• Manual Annotations of this start: 1 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Commandaria_32 (CR2),

Start 9:
• Found in 1 of 65 (1.5%) of genes in pham
• Manual Annotations of this start: 1 of 59

• Called 100.0% of time when present
• Phage (with cluster) where this start called: ChewyVIII_44 (singleton),

Start 15:
• Found in 8 of 65 (12.3%) of genes in pham
• Manual Annotations of this start: 8 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: C3PO_18 (EN), Cruella_18 (EN), Darwin_21 (EN), Kimchi1738_18 (EN), PeteyPab_17 (EN), PotatoChip_18 (EN), Stickynote_20 (EN), Zion_18 (EN),

Start 16:
• Found in 2 of 65 (3.1%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gallia_26 (singleton), P1201_33 (singleton),

Start 25:
• Found in 1 of 65 (1.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SPB78_8 (BA),

Summary by clusters:

There are 10 clusters represented in this pham: CR2, CR3, singleton, CR1, CR6, BA, CR4, CR5, EN, CR7,

Info for manual annotations of cluster CR1:
•Start number 4 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 4 was manually annotated 11 times for cluster CR2.
•Start number 5 was manually annotated 9 times for cluster CR2.
•Start number 6 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 4 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:
•Start number 4 was manually annotated 9 times for cluster CR4.

Info for manual annotations of cluster CR5:
•Start number 4 was manually annotated 4 times for cluster CR5.

Info for manual annotations of cluster CR6:
•Start number 4 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:
•Start number 4 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster EN:
•Start number 15 was manually annotated 8 times for cluster EN.

Gene Information:

Gene: Apiary_34 Start: 21074, Stop: 21514, Start Num: 4
Candidate Starts for Apiary_34:
(Start: 4 @21074 has 40 MA's), (26, 21227), (29, 21293), (37, 21443), (38, 21455),

Gene: Arti_30 Start: 19128, Stop: 19589, Start Num: 4
Candidate Starts for Arti_30:
(Start: 4 @19128 has 40 MA's), (7, 19152), (23, 19266), (36, 19512), (38, 19530),

Gene: BiPauneto_33 Start: 19003, Stop: 19446, Start Num: 4
Candidate Starts for BiPauneto_33:
(Start: 4 @19003 has 40 MA's), (7, 19030), (17, 19102), (21, 19135), (38, 19390), (41, 19432),

Gene: Bonum_33 Start: 19462, Stop: 19920, Start Num: 5
Candidate Starts for Bonum_33:
(Start: 5 @19462 has 9 MA's), (11, 19525), (38, 19861),

Gene: Braxoaddie_34 Start: 21063, Stop: 21503, Start Num: 4
Candidate Starts for Braxoaddie_34:
(Start: 4 @21063 has 40 MA's), (26, 21216), (29, 21282), (37, 21432), (38, 21444),

Gene: Buggaboo_31 Start: 19947, Stop: 20405, Start Num: 5
Candidate Starts for Buggaboo_31:
(Start: 5 @19947 has 9 MA's), (11, 20010), (38, 20346),

Gene: C3PO_18 Start: 13660, Stop: 14010, Start Num: 15
Candidate Starts for C3PO_18:
(Start: 15 @13660 has 8 MA's), (20, 13690), (31, 13855), (39, 13966),

Gene: ChewyVIII_44 Start: 26668, Stop: 27093, Start Num: 9
Candidate Starts for ChewyVIII_44:
(Start: 9 @26668 has 1 MA's), (33, 26932), (42, 27070),

Gene: CoffeeBean_34 Start: 21018, Stop: 21458, Start Num: 4
Candidate Starts for CoffeeBean_34:
(Start: 4 @21018 has 40 MA's), (26, 21171), (29, 21237), (37, 21387), (38, 21399),

Gene: Commandaria_32 Start: 20461, Stop: 20910, Start Num: 6
Candidate Starts for Commandaria_32:
(Start: 6 @20461 has 1 MA's), (30, 20731), (36, 20833), (38, 20851),

Gene: Cruella_18 Start: 13660, Stop: 14010, Start Num: 15
Candidate Starts for Cruella_18:
(Start: 15 @13660 has 8 MA's), (20, 13690), (31, 13855), (39, 13966),

Gene: Dalilpop_35 Start: 21478, Stop: 21912, Start Num: 4
Candidate Starts for Dalilpop_35:

(Start: 4 @21478 has 40 MA's), (7, 21505), (8, 21508), (10, 21535), (18, 21583), (32, 21766), (38, 21856),

Gene: Darwin_21 Start: 14405, Stop: 14755, Start Num: 15
Candidate Starts for Darwin_21:
(Start: 15 @14405 has 8 MA's), (20, 14435), (31, 14600), (39, 14711),

Gene: Emianna_30 Start: 20167, Stop: 20625, Start Num: 4
Candidate Starts for Emianna_30:
(Start: 4 @20167 has 40 MA's), (7, 20191), (18, 20269), (23, 20305), (36, 20548), (38, 20566),

Gene: Ennea_36 Start: 20775, Stop: 21239, Start Num: 4
Candidate Starts for Ennea_36:
(Start: 4 @20775 has 40 MA's), (7, 20799), (8, 20802), (10, 20829), (30, 21042), (36, 21168), (38, 21186),

Gene: Flapper_34 Start: 20559, Stop: 20993, Start Num: 4
Candidate Starts for Flapper_34:
(Start: 4 @20559 has 40 MA's), (7, 20586), (8, 20589), (10, 20616), (18, 20664), (32, 20847), (38, 20937),

Gene: Float294_32 Start: 20217, Stop: 20678, Start Num: 4
Candidate Starts for Float294_32:
(Start: 4 @20217 has 40 MA's), (7, 20241), (8, 20244), (10, 20271), (30, 20484), (36, 20607), (38, 20625),

Gene: Foxboro_31 Start: 20673, Stop: 21131, Start Num: 4
Candidate Starts for Foxboro_31:
(Start: 4 @20673 has 40 MA's), (7, 20697), (14, 20754), (18, 20775), (23, 20811), (36, 21054), (38, 21072),

Gene: Fury_39 Start: 19839, Stop: 20279, Start Num: 4
Candidate Starts for Fury_39:
(Start: 4 @19839 has 40 MA's), (7, 19863), (10, 19893), (19, 19944), (37, 20214), (38, 20226),

Gene: GRU1_20 Start: 12444, Stop: 12878, Start Num: 4
Candidate Starts for GRU1_20:
(Start: 4 @12444 has 40 MA's), (7, 12471), (8, 12474), (10, 12501), (18, 12549), (32, 12732), (38, 12822),

Gene: GTE5_21 Start: 13447, Stop: 13881, Start Num: 4
Candidate Starts for GTE5_21:
(Start: 4 @13447 has 40 MA's), (7, 13474), (8, 13477), (10, 13504), (18, 13552), (32, 13735), (38, 13825),

Gene: GTE8_19 Start: 13433, Stop: 13885, Start Num: 5
Candidate Starts for GTE8_19:
(3, 13355), (Start: 5 @13433 has 9 MA's), (7, 13460), (23, 13574), (36, 13808), (38, 13826),

Gene: Gagieri_34 Start: 20865, Stop: 21335, Start Num: 4
Candidate Starts for Gagieri_34:
(Start: 4 @20865 has 40 MA's), (11, 20925), (13, 20946), (26, 21021), (35, 21225), (37, 21264), (38, 21276),

Gene: Gallia_26 Start: 17437, Stop: 17799, Start Num: 16
Candidate Starts for Gallia_26:
(16, 17437), (20, 17461), (24, 17488), (40, 17761),

Gene: GrootJr_32 Start: 19523, Stop: 19984, Start Num: 4
Candidate Starts for GrootJr_32:
(Start: 4 @19523 has 40 MA's), (7, 19547), (23, 19661), (36, 19907), (38, 19925),

Gene: HomeFry_36 Start: 18511, Stop: 18942, Start Num: 4
Candidate Starts for HomeFry_36:
(Start: 4 @18511 has 40 MA's), (7, 18535), (37, 18877), (38, 18889),

Gene: HubbaBubba_28 Start: 16021, Stop: 16464, Start Num: 4
Candidate Starts for HubbaBubba_28:
(Start: 4 @16021 has 40 MA's), (7, 16048), (17, 16120), (21, 16153), (38, 16408), (41, 16450),

Gene: IDyn_31 Start: 17417, Stop: 17860, Start Num: 4
Candidate Starts for IDyn_31:
(Start: 4 @17417 has 40 MA's), (7, 17444), (17, 17516), (21, 17549), (38, 17804), (41, 17846),

Gene: Jifall16_29 Start: 19803, Stop: 20252, Start Num: 4
Candidate Starts for Jifall16_29:
(Start: 4 @19803 has 40 MA's), (7, 19827), (18, 19905), (23, 19941), (36, 20175), (38, 20193),

Gene: Kabluna_33 Start: 18862, Stop: 19320, Start Num: 5
Candidate Starts for Kabluna_33:
(Start: 5 @18862 has 9 MA's), (11, 18925), (38, 19261),

Gene: KidneyBean_30 Start: 19916, Stop: 20401, Start Num: 5
Candidate Starts for KidneyBean_30:
(3, 19838), (Start: 5 @19916 has 9 MA's), (7, 19940), (23, 20054), (36, 20324), (38, 20342),

Gene: Kimchi1738_18 Start: 13258, Stop: 13608, Start Num: 15
Candidate Starts for Kimchi1738_18:
(Start: 15 @13258 has 8 MA's), (20, 13288), (31, 13453), (39, 13564),

Gene: Kurt_30 Start: 20182, Stop: 20640, Start Num: 4
Candidate Starts for Kurt_30:
(Start: 4 @20182 has 40 MA's), (7, 20206), (18, 20284), (23, 20320), (36, 20563), (38, 20581),

Gene: Lollipop1437_35 Start: 20763, Stop: 21227, Start Num: 4
Candidate Starts for Lollipop1437_35:
(Start: 4 @20763 has 40 MA's), (7, 20787), (8, 20790), (10, 20817), (30, 21030), (36, 21156), (38, 21174),

Gene: MacGully_38 Start: 21048, Stop: 21485, Start Num: 4
Candidate Starts for MacGully_38:
(Start: 4 @21048 has 40 MA's), (26, 21201), (29, 21267), (38, 21423), (41, 21465),

Gene: Marietta_32 Start: 17337, Stop: 17777, Start Num: 4
Candidate Starts for Marietta_32:
(Start: 4 @17337 has 40 MA's), (7, 17364), (17, 17436), (38, 17724), (41, 17766),

Gene: Maselop_34 Start: 21094, Stop: 21534, Start Num: 4
Candidate Starts for Maselop_34:
(Start: 4 @21094 has 40 MA's), (26, 21247), (29, 21313), (37, 21463), (38, 21475),

Gene: MerCougar_31 Start: 20066, Stop: 20527, Start Num: 5
Candidate Starts for MerCougar_31:
(1, 19880), (2, 19913), (3, 19988), (Start: 5 @20066 has 9 MA's), (11, 20129), (38, 20465),

Gene: NadineRae_30 Start: 16583, Stop: 17023, Start Num: 4
Candidate Starts for NadineRae_30:
(Start: 4 @16583 has 40 MA's), (7, 16610), (17, 16682), (21, 16715), (38, 16970), (41, 17012),

Gene: NatB6_30 Start: 19191, Stop: 19649, Start Num: 4
Candidate Starts for NatB6_30:
(Start: 4 @19191 has 40 MA's), (7, 19215), (18, 19293), (23, 19329), (36, 19572), (38, 19590),

Gene: NosilaM_33 Start: 19759, Stop: 20217, Start Num: 5
Candidate Starts for NosilaM_33:
(Start: 5 @19759 has 9 MA's), (11, 19822), (38, 20158),

Gene: NovumRegina_30 Start: 19522, Stop: 19983, Start Num: 4
Candidate Starts for NovumRegina_30:
(Start: 4 @19522 has 40 MA's), (7, 19546), (23, 19660), (36, 19906), (38, 19924),

Gene: Outis_31 Start: 19760, Stop: 20221, Start Num: 5
Candidate Starts for Outis_31:
(1, 19574), (2, 19607), (3, 19682), (Start: 5 @19760 has 9 MA's), (11, 19823), (38, 20159),

Gene: P1201_33 Start: 20622, Stop: 20984, Start Num: 16
Candidate Starts for P1201_33:
(16, 20622), (20, 20646), (24, 20673), (34, 20835), (40, 20946),

Gene: Patio_33 Start: 19999, Stop: 20463, Start Num: 4
Candidate Starts for Patio_33:
(Start: 4 @19999 has 40 MA's), (7, 20023), (8, 20026), (10, 20053), (30, 20266), (36, 20392), (38, 20410),

Gene: Pemberton_33 Start: 17320, Stop: 17763, Start Num: 4
Candidate Starts for Pemberton_33:
(Start: 4 @17320 has 40 MA's), (7, 17347), (17, 17419), (38, 17707), (41, 17749),

Gene: PeteyPab_17 Start: 13625, Stop: 13975, Start Num: 15
Candidate Starts for PeteyPab_17:
(Start: 15 @13625 has 8 MA's), (20, 13655), (31, 13820), (39, 13931),

Gene: Phomeo_29 Start: 19817, Stop: 20275, Start Num: 4
Candidate Starts for Phomeo_29:
(Start: 4 @19817 has 40 MA's), (7, 19841), (18, 19919), (23, 19955), (36, 20198), (38, 20216),

Gene: Pleakley_39 Start: 19840, Stop: 20280, Start Num: 4
Candidate Starts for Pleakley_39:
(Start: 4 @19840 has 40 MA's), (7, 19864), (10, 19894), (19, 19945), (37, 20215), (38, 20227),

Gene: Polyyuki_34 Start: 21086, Stop: 21526, Start Num: 4
Candidate Starts for Polyyuki_34:
(Start: 4 @21086 has 40 MA's), (26, 21239), (29, 21305), (37, 21455), (38, 21467),

Gene: PotatoChip_18 Start: 13627, Stop: 13977, Start Num: 15
Candidate Starts for PotatoChip_18:
(Start: 15 @13627 has 8 MA's), (20, 13657), (31, 13822), (39, 13933),

Gene: RedRaider_37 Start: 22003, Stop: 22467, Start Num: 4
Candidate Starts for RedRaider_37:
(Start: 4 @22003 has 40 MA's), (7, 22027), (8, 22030), (10, 22057), (22, 22138), (30, 22270), (36, 22396), (38, 22414),

Gene: SPB78_8 Start: 6623, Stop: 6946, Start Num: 25
Candidate Starts for SPB78_8:
(12, 6548), (25, 6623), (27, 6650), (28, 6689), (37, 6872), (39, 6899), (43, 6941),

Gene: Scuba_39 Start: 19933, Stop: 20373, Start Num: 4
Candidate Starts for Scuba_39:
(Start: 4 @19933 has 40 MA's), (7, 19957), (10, 19987), (19, 20038), (37, 20308), (38, 20320),

Gene: Skysand_32 Start: 20219, Stop: 20680, Start Num: 4
Candidate Starts for Skysand_32:
(Start: 4 @20219 has 40 MA's), (7, 20243), (8, 20246), (10, 20273), (30, 20486), (36, 20609), (38, 20627),

Gene: StarStruck_31 Start: 19760, Stop: 20221, Start Num: 5
Candidate Starts for StarStruck_31:
(1, 19574), (2, 19607), (3, 19682), (Start: 5 @19760 has 9 MA's), (11, 19823), (38, 20159),

Gene: Stickynote_20 Start: 14437, Stop: 14787, Start Num: 15
Candidate Starts for Stickynote_20:
(Start: 15 @14437 has 8 MA's), (20, 14467), (31, 14632), (39, 14743),

Gene: Sukkupi_32 Start: 18894, Stop: 19337, Start Num: 4
Candidate Starts for Sukkupi_32:
(Start: 4 @18894 has 40 MA's), (7, 18921), (17, 18993), (21, 19026), (38, 19281), (41, 19323),

Gene: SuperSulley_31 Start: 19947, Stop: 20405, Start Num: 5
Candidate Starts for SuperSulley_31:
(Start: 5 @19947 has 9 MA's), (11, 20010), (38, 20346),

Gene: Tracker_30 Start: 18945, Stop: 19403, Start Num: 4
Candidate Starts for Tracker_30:
(Start: 4 @18945 has 40 MA's), (7, 18969), (18, 19047), (23, 19083), (36, 19326), (38, 19344),

Gene: Turuncu_34 Start: 20252, Stop: 20686, Start Num: 4
Candidate Starts for Turuncu_34:
(Start: 4 @20252 has 40 MA's), (7, 20279), (8, 20282), (10, 20309), (18, 20357), (32, 20540), (38, 20630),

Gene: Wheezy_30 Start: 19148, Stop: 19609, Start Num: 4

Candidate Starts for Wheezy_30:
(Start: 4 @19148 has 40 MA's), (7, 19172), (23, 19286), (36, 19532), (38, 19550),

Gene: WhoseManz_32 Start: 16948, Stop: 17388, Start Num: 4
Candidate Starts for WhoseManz_32:
(Start: 4 @16948 has 40 MA's), (7, 16975), (17, 17047), (38, 17335), (41, 17377),

Gene: Yndexa_32 Start: 18894, Stop: 19337, Start Num: 4
Candidate Starts for Yndexa_32:
(Start: 4 @18894 has 40 MA's), (7, 18921), (17, 18993), (21, 19026), (38, 19281), (41, 19323),

Gene: Zion_18 Start: 13625, Stop: 13975, Start Num: 15
Candidate Starts for Zion_18:
(Start: 15 @13625 has 8 MA's), (20, 13655), (31, 13820), (39, 13931),