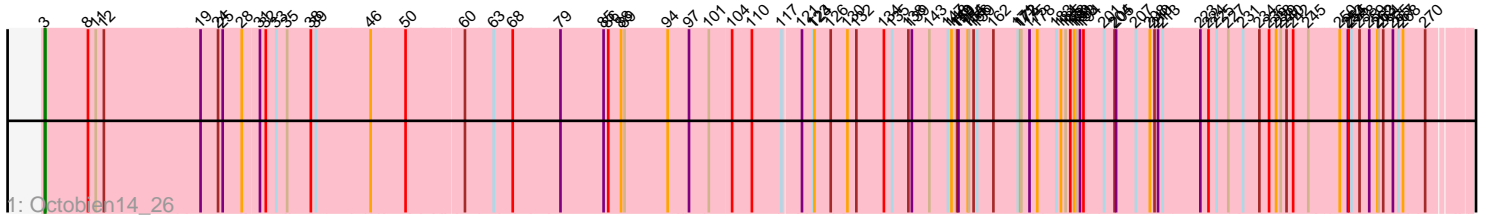
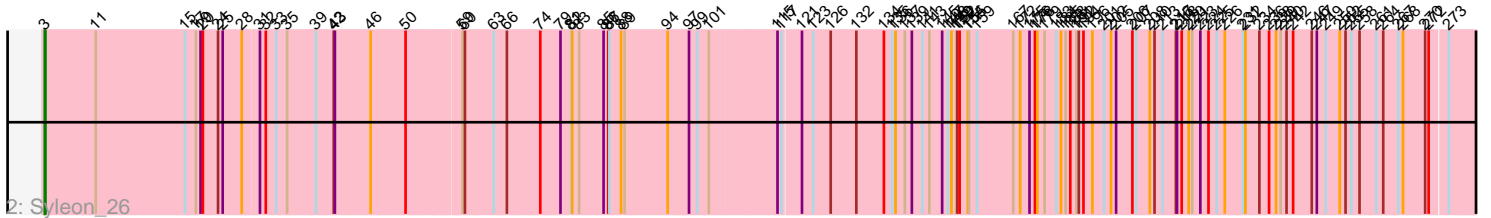


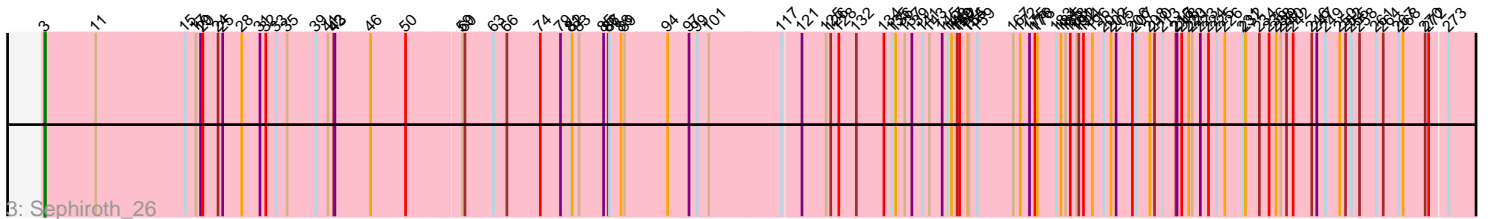
# Zoomed Pham 197167



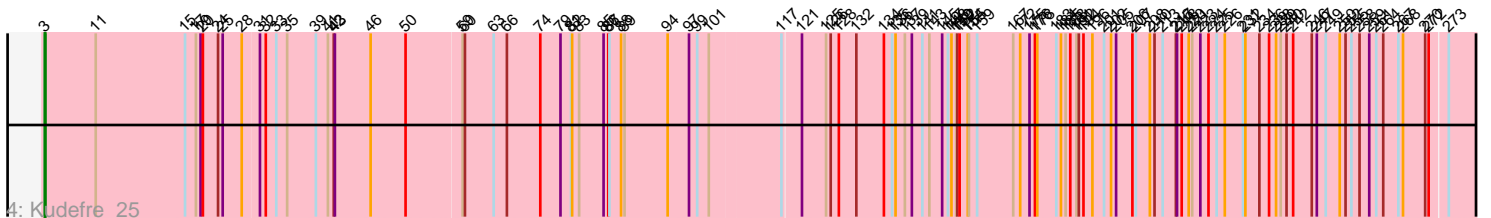
1: October14\_26



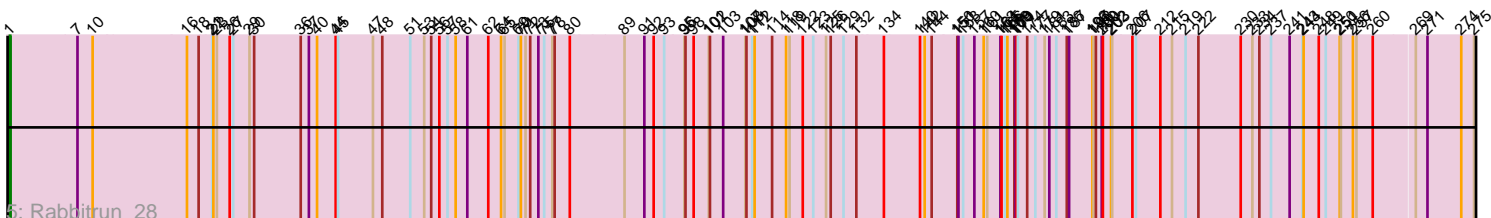
2: Syleon\_26



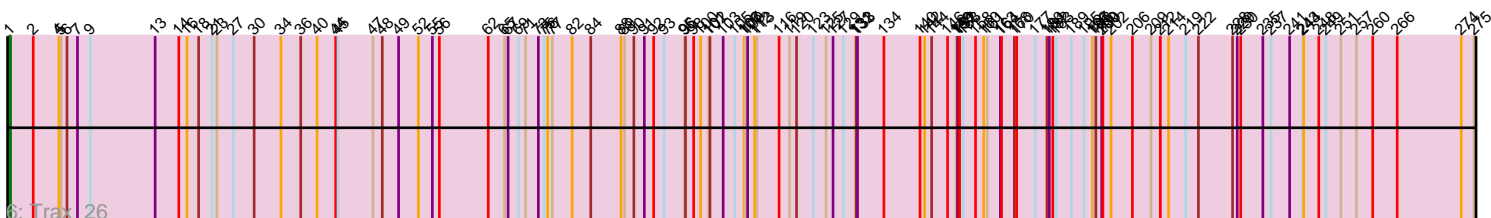
3: Sephiroth\_26



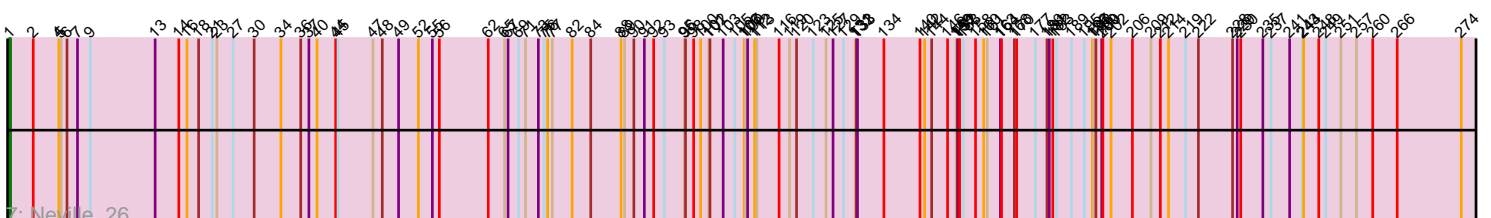
4: Kudefre\_25



5: Rabbitrun\_28



6: Trax\_26



7: Neville\_26

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 197167 Report

This analysis was run 12/09/24 on database version 580.

Pham number 197167 has 7 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Octobien14\_26
- Track 2 : Syleon\_26
- Track 3 : Sephiroth\_26
- Track 4 : Kudrefre\_25
- Track 5 : Rabbitrun\_28
- Track 6 : Trax\_26
- Track 7 : Neville\_26

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

The start number called the most often in the published annotations is 3, it was called in 4 of the 7 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Kudrefre\_25, Octobien14\_26, Sephiroth\_26, Syleon\_26,

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

- 

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

- Neville\_26, Rabbitrun\_28, Trax\_26,

### **Summary by start number:**

Start 1:

- Found in 3 of 7 ( 42.9% ) of genes in pham
- Manual Annotations of this start: 3 of 7
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Neville\_26 (DU2), Rabbitrun\_28 (DU2), Trax\_26 (DU2),

Start 3:

- Found in 4 of 7 ( 57.1% ) of genes in pham
- Manual Annotations of this start: 4 of 7

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre\_25 (DU1), Octobien14\_26 (DU1), Sephiroth\_26 (DU1), Syleon\_26 (DU1),

### Summary by clusters:

There are 2 clusters represented in this pham: DU1, DU2,

Info for manual annotations of cluster DU1:

- Start number 3 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 1 was manually annotated 3 times for cluster DU2.

### Gene Information:

Gene: Kudrefre\_25 Start: 14284, Stop: 20781, Start Num: 3

Candidate Starts for Kudrefre\_25:

(Start: 3 @14284 has 4 MA's), (11, 14413), (15, 14641), (17, 14668), (19, 14680), (20, 14686), (24, 14725), (25, 14737), (28, 14785), (31, 14824), (32, 14839), (33, 14866), (35, 14893), (39, 14962), (41, 14989), (42, 15004), (43, 15007), (46, 15094), (50, 15178), (59, 15310), (60, 15316), (63, 15382), (66, 15415), (74, 15499), (79, 15550), (81, 15577), (82, 15580), (83, 15598), (85, 15661), (86, 15673), (87, 15676), (88, 15706), (89, 15715), (94, 15826), (97, 15877), (99, 15898), (101, 15919), (117, 16087), (121, 16129), (125, 16183), (126, 16195), (128, 16213), (132, 16255), (134, 16324), (135, 16345), (136, 16354), (137, 16378), (139, 16396), (141, 16423), (143, 16441), (145, 16474), (147, 16489), (148, 16498), (149, 16510), (150, 16513), (152, 16519), (154, 16540), (155, 16543), (159, 16564), (167, 16657), (172, 16675), (175, 16699), (176, 16711), (178, 16717), (183, 16762), (184, 16774), (185, 16786), (188, 16798), (191, 16810), (192, 16816), (194, 16828), (196, 16849), (201, 16876), (202, 16894), (205, 16906), (206, 16948), (207, 16957), (208, 16993), (210, 17005), (213, 17026), (216, 17056), (217, 17059), (218, 17071), (220, 17089), (221, 17098), (223, 17119), (224, 17140), (225, 17161), (226, 17182), (231, 17224), (232, 17230), (234, 17266), (236, 17287), (238, 17305), (239, 17317), (240, 17332), (242, 17347), (246, 17395), (247, 17407), (249, 17425), (250, 17458), (252, 17473), (255, 17488), (258, 17509), (259, 17533), (261, 17551), (264, 17569), (267, 17605), (268, 17617), (270, 17668), (272, 17677), (273, 17719), (276, 17797), (277, 17842), (279, 17851), (280, 17887), (290, 18061), (291, 18064), (292, 18067), (294, 18094), (295, 18097), (298, 18121), (299, 18127), (301, 18151), (302, 18181), (303, 18229), (305, 18274), (306, 18289), (307, 18301), (308, 18322), (317, 18556), (322, 18583), (323, 18601), (340, 19081), (341, 19084), (344, 19144), (349, 19234), (350, 19237), (351, 19255), (352, 19288), (353, 19321), (355, 19411), (357, 19417), (358, 19435), (364, 19603), (367, 19681), (369, 19699), (370, 19735), (371, 19753), (372, 19759), (376, 19867), (381, 19957), (382, 19978), (383, 19984), (384, 19999), (385, 20008), (387, 20089), (388, 20092), (390, 20137), (392, 20260), (395, 20323), (397, 20359), (399, 20389), (402, 20410), (403, 20473), (406, 20509), (408, 20554), (413, 20596), (414, 20623), (415, 20656), (417, 20686), (419, 20758),

Gene: Neville\_26 Start: 15512, Stop: 22348, Start Num: 1

Candidate Starts for Neville\_26:

(Start: 1 @15512 has 3 MA's), (2, 15572), (4, 15638), (5, 15644), (6, 15656), (7, 15683), (9, 15716), (13, 15878), (14, 15938), (16, 15959), (18, 15989), (21, 16022), (23, 16034), (27, 16076), (30, 16130), (34, 16199), (36, 16250), (37, 16271), (40, 16292), (44, 16340), (45, 16346), (47, 16436), (48, 16460), (49, 16502), (52, 16553), (55, 16589), (56, 16607), (62, 16733), (65, 16775), (67, 16784), (69, 16811), (71, 16829), (73, 16862), (75, 16877), (76, 16886), (77, 16898), (82, 16949), (84, 16994), (88, 17066),

(89, 17075), (90, 17099), (91, 17126), (92, 17150), (93, 17177), (95, 17228), (96, 17231), (98, 17252), (100, 17270), (101, 17291), (102, 17294), (103, 17327), (105, 17357), (106, 17381), (107, 17384), (109, 17390), (112, 17408), (113, 17414), (116, 17471), (119, 17498), (120, 17516), (123, 17558), (125, 17591), (127, 17609), (129, 17636), (131, 17666), (132, 17669), (133, 17672), (134, 17738), (140, 17828), (142, 17840), (144, 17858), (146, 17897), (149, 17918), (150, 17921), (151, 17924), (152, 17927), (153, 17936), (158, 17963), (160, 17984), (161, 17993), (163, 18026), (164, 18029), (168, 18062), (170, 18068), (177, 18116), (180, 18146), (181, 18152), (182, 18161), (183, 18170), (189, 18209), (195, 18242), (196, 18263), (197, 18266), (198, 18272), (199, 18287), (200, 18290), (202, 18311), (206, 18365), (209, 18410), (212, 18434), (214, 18455), (219, 18497), (222, 18530), (228, 18617), (229, 18629), (230, 18638), (235, 18695), (237, 18716), (241, 18764), (243, 18797), (244, 18800), (248, 18839), (249, 18857), (251, 18896), (257, 18935), (260, 18977), (266, 19040), (274, 19205), (282, 19406), (283, 19424), (284, 19436), (287, 19472), (288, 19511), (289, 19514), (304, 19691), (309, 19814), (312, 19931), (313, 19961), (314, 19967), (315, 20000), (316, 20006), (318, 20027), (321, 20036), (325, 20114), (326, 20123), (327, 20198), (328, 20222), (330, 20264), (331, 20291), (332, 20300), (333, 20336), (334, 20339), (335, 20396), (336, 20432), (337, 20441), (338, 20510), (339, 20564), (342, 20621), (343, 20630), (344, 20642), (346, 20681), (347, 20684), (348, 20702), (349, 20735), (351, 20762), (354, 20903), (356, 20954), (359, 20984), (363, 21131), (367, 21236), (368, 21251), (373, 21401), (380, 21518), (386, 21662), (389, 21689), (391, 21779), (393, 21866), (394, 21869), (395, 21887), (396, 21890), (397, 21923), (398, 21926), (402, 21974), (405, 22064), (409, 22127), (410, 22133), (411, 22142), (414, 22187), (420, 22331),

Gene: Octobien14\_26 Start: 15347, Stop: 21745, Start Num: 3

Candidate Starts for Octobien14\_26:

(Start: 3 @15347 has 4 MA's), (8, 15458), (11, 15476), (12, 15497), (19, 15743), (24, 15788), (25, 15800), (28, 15848), (31, 15887), (32, 15902), (33, 15929), (35, 15956), (38, 16013), (39, 16025), (46, 16157), (50, 16241), (60, 16379), (63, 16445), (68, 16493), (79, 16613), (85, 16724), (86, 16736), (88, 16769), (89, 16778), (94, 16889), (97, 16940), (101, 16982), (104, 17036), (110, 17078), (117, 17150), (121, 17192), (123, 17213), (124, 17216), (126, 17258), (130, 17297), (132, 17318), (134, 17387), (135, 17408), (138, 17450), (139, 17459), (143, 17504), (147, 17552), (148, 17561), (149, 17573), (150, 17576), (151, 17579), (154, 17603), (155, 17606), (156, 17618), (159, 17627), (162, 17669), (171, 17732), (172, 17738), (173, 17741), (175, 17762), (178, 17780), (183, 17825), (184, 17837), (185, 17849), (188, 17861), (190, 17867), (191, 17873), (193, 17882), (194, 17891), (201, 17939), (204, 17966), (205, 17969), (207, 18020), (208, 18056), (210, 18068), (211, 18077), (213, 18089), (223, 18182), (224, 18203), (225, 18224), (227, 18254), (231, 18287), (234, 18329), (236, 18350), (238, 18368), (239, 18380), (240, 18395), (242, 18410), (245, 18449), (250, 18521), (253, 18542), (254, 18545), (255, 18551), (258, 18572), (259, 18596), (262, 18617), (263, 18620), (264, 18632), (265, 18656), (267, 18668), (268, 18680), (270, 18731), (281, 18911), (285, 18947), (286, 18965), (290, 19019), (295, 19055), (301, 19109), (303, 19187), (305, 19232), (306, 19247), (307, 19259), (308, 19280), (310, 19400), (311, 19418), (317, 19502), (319, 19517), (320, 19520), (322, 19529), (323, 19547), (324, 19592), (326, 19613), (329, 19733), (341, 20054), (345, 20117), (349, 20204), (350, 20207), (351, 20225), (352, 20258), (353, 20291), (355, 20381), (357, 20387), (358, 20405), (360, 20462), (361, 20519), (364, 20567), (365, 20609), (366, 20621), (369, 20663), (371, 20717), (372, 20723), (374, 20801), (375, 20804), (377, 20837), (378, 20888), (380, 20906), (381, 20921), (382, 20942), (383, 20948), (384, 20963), (385, 20972), (387, 21053), (388, 21056), (390, 21101), (395, 21287), (399, 21353), (400, 21365), (401, 21368), (404, 21440), (406, 21473), (407, 21497), (411, 21542), (413, 21560), (414, 21587), (416, 21623), (419, 21722),

Gene: Rabbitrun\_28 Start: 15970, Stop: 22656, Start Num: 1

Candidate Starts for Rabbitrun\_28:

(Start: 1 @15970 has 3 MA's), (7, 16138), (10, 16177), (16, 16414), (18, 16444), (21, 16477), (22, 16480), (23, 16489), (26, 16522), (27, 16531), (29, 16573), (30, 16585), (36, 16705), (37, 16726), (40, 16747), (44, 16795), (45, 16801), (47, 16891), (48, 16915), (51, 16987), (53, 17023), (54, 17041), (56, 17062), (57, 17083), (58, 17104), (61, 17134), (62, 17188), (64, 17221), (65, 17230), (69, 17266), (70,

17272), (71, 17284), (72, 17296), (73, 17317), (75, 17332), (77, 17353), (78, 17359), (80, 17398), (89, 17530), (91, 17581), (92, 17605), (93, 17632), (95, 17683), (96, 17686), (98, 17707), (101, 17746), (102, 17749), (103, 17782), (107, 17839), (108, 17842), (111, 17857), (112, 17863), (114, 17908), (118, 17944), (119, 17953), (122, 17986), (123, 18013), (125, 18046), (126, 18058), (129, 18091), (132, 18124), (134, 18193), (140, 18283), (142, 18295), (144, 18313), (150, 18376), (151, 18379), (153, 18391), (157, 18415), (160, 18439), (161, 18448), (163, 18481), (164, 18484), (165, 18493), (166, 18499), (168, 18517), (169, 18520), (170, 18523), (171, 18526), (174, 18550), (177, 18571), (179, 18595), (181, 18607), (183, 18625), (186, 18652), (187, 18658), (196, 18718), (197, 18721), (198, 18727), (199, 18742), (200, 18745), (202, 18766), (203, 18769), (206, 18820), (207, 18829), (212, 18889), (215, 18919), (219, 18952), (222, 18985), (230, 19093), (233, 19123), (234, 19141), (237, 19171), (241, 19219), (243, 19252), (244, 19255), (248, 19294), (249, 19312), (250, 19348), (251, 19351), (256, 19381), (257, 19390), (260, 19432), (269, 19531), (271, 19561), (274, 19642), (275, 19675), (278, 19738), (282, 19816), (283, 19834), (288, 19921), (293, 19954), (296, 19978), (297, 19981), (300, 20005), (304, 20110), (312, 20347), (313, 20377), (314, 20383), (316, 20422), (321, 20452), (324, 20518), (325, 20530), (326, 20539), (327, 20614), (328, 20638), (330, 20680), (331, 20707), (332, 20716), (333, 20752), (334, 20755), (335, 20812), (337, 20857), (338, 20926), (339, 20980), (342, 21037), (343, 21046), (344, 21058), (346, 21097), (347, 21100), (349, 21151), (351, 21178), (354, 21319), (356, 21370), (359, 21400), (362, 21526), (363, 21547), (367, 21652), (368, 21667), (374, 21829), (379, 21928), (380, 21931), (386, 22078), (389, 22105), (391, 22195), (393, 22282), (394, 22285), (395, 22303), (396, 22306), (397, 22339), (398, 22342), (402, 22390), (408, 22426), (410, 22441), (411, 22450), (412, 22459), (414, 22495), (420, 22639), (421, 22648),

Gene: Sephiroth\_26 Start: 14455, Stop: 20952, Start Num: 3

Candidate Starts for Sephiroth\_26:

(Start: 3 @14455 has 4 MA's), (11, 14584), (15, 14812), (17, 14839), (19, 14851), (20, 14857), (24, 14896), (25, 14908), (28, 14956), (31, 14995), (32, 15010), (33, 15037), (35, 15064), (39, 15133), (41, 15160), (42, 15175), (43, 15178), (46, 15265), (50, 15349), (59, 15481), (60, 15487), (63, 15553), (66, 15586), (74, 15670), (79, 15721), (81, 15748), (82, 15751), (83, 15769), (85, 15832), (86, 15844), (87, 15847), (88, 15877), (89, 15886), (94, 15997), (97, 16048), (99, 16069), (101, 16090), (117, 16258), (121, 16300), (125, 16354), (126, 16366), (128, 16384), (132, 16426), (134, 16495), (135, 16516), (136, 16525), (137, 16549), (139, 16567), (141, 16594), (143, 16612), (145, 16645), (147, 16660), (148, 16669), (149, 16681), (150, 16684), (152, 16690), (154, 16711), (155, 16714), (159, 16735), (167, 16828), (172, 16846), (175, 16870), (176, 16882), (178, 16888), (183, 16933), (184, 16945), (185, 16957), (188, 16969), (191, 16981), (192, 16987), (194, 16999), (196, 17020), (201, 17047), (202, 17065), (205, 17077), (206, 17119), (207, 17128), (208, 17164), (210, 17176), (213, 17197), (216, 17227), (217, 17230), (218, 17242), (220, 17260), (221, 17269), (223, 17290), (224, 17311), (225, 17332), (226, 17353), (231, 17395), (232, 17401), (234, 17437), (236, 17458), (238, 17476), (239, 17488), (240, 17503), (242, 17518), (246, 17566), (247, 17578), (249, 17596), (250, 17629), (252, 17644), (255, 17659), (258, 17680), (261, 17722), (264, 17740), (267, 17776), (268, 17788), (270, 17839), (272, 17848), (273, 17890), (277, 18013), (279, 18022), (280, 18058), (290, 18232), (291, 18235), (292, 18238), (294, 18265), (295, 18268), (298, 18292), (299, 18298), (301, 18322), (302, 18352), (303, 18400), (305, 18445), (306, 18460), (307, 18472), (308, 18493), (317, 18727), (322, 18754), (323, 18772), (340, 19252), (341, 19255), (344, 19315), (349, 19405), (350, 19408), (351, 19426), (352, 19459), (353, 19492), (355, 19582), (357, 19588), (358, 19606), (364, 19774), (367, 19852), (369, 19870), (370, 19906), (371, 19924), (372, 19930), (376, 20038), (381, 20128), (382, 20149), (383, 20155), (384, 20170), (385, 20179), (387, 20260), (388, 20263), (390, 20308), (392, 20431), (397, 20530), (399, 20560), (402, 20581), (403, 20644), (406, 20680), (408, 20725), (413, 20767), (414, 20794), (415, 20827), (417, 20857), (418, 20914), (419, 20929),

Gene: Syleon\_26 Start: 14377, Stop: 20874, Start Num: 3

Candidate Starts for Syleon\_26:

(Start: 3 @14377 has 4 MA's), (11, 14506), (15, 14734), (17, 14761), (19, 14773), (20, 14779), (24, 14818), (25, 14830), (28, 14878), (31, 14917), (32, 14932), (33, 14959), (35, 14986), (39, 15055), (42,

15097), (43, 15100), (46, 15187), (50, 15271), (59, 15403), (60, 15409), (63, 15475), (66, 15508), (74, 15592), (79, 15643), (81, 15670), (82, 15673), (83, 15691), (85, 15754), (86, 15766), (87, 15769), (88, 15799), (89, 15808), (94, 15919), (97, 15970), (99, 15991), (101, 16012), (115, 16174), (117, 16180), (121, 16222), (123, 16243), (126, 16288), (132, 16348), (134, 16417), (135, 16438), (136, 16447), (137, 16471), (139, 16489), (141, 16516), (143, 16534), (145, 16567), (147, 16582), (148, 16591), (149, 16603), (150, 16606), (152, 16612), (154, 16633), (155, 16636), (159, 16657), (167, 16750), (172, 16768), (175, 16792), (176, 16804), (178, 16810), (179, 16825), (183, 16855), (184, 16867), (185, 16879), (188, 16891), (191, 16903), (192, 16909), (194, 16921), (196, 16942), (201, 16969), (202, 16987), (205, 16999), (206, 17041), (207, 17050), (208, 17086), (210, 17098), (213, 17119), (216, 17149), (217, 17152), (218, 17164), (220, 17182), (221, 17191), (223, 17212), (224, 17233), (225, 17254), (226, 17275), (231, 17317), (232, 17323), (234, 17359), (236, 17380), (238, 17398), (239, 17410), (240, 17425), (242, 17440), (246, 17488), (247, 17500), (249, 17518), (250, 17551), (252, 17566), (255, 17581), (258, 17602), (261, 17644), (264, 17662), (267, 17698), (268, 17710), (270, 17761), (272, 17770), (273, 17812), (277, 17935), (279, 17944), (280, 17980), (290, 18154), (291, 18157), (292, 18160), (294, 18187), (295, 18190), (298, 18214), (299, 18220), (301, 18244), (302, 18274), (303, 18322), (305, 18367), (306, 18382), (307, 18394), (308, 18415), (317, 18649), (322, 18676), (323, 18694), (340, 19174), (341, 19177), (344, 19237), (349, 19327), (350, 19330), (351, 19348), (352, 19381), (353, 19414), (355, 19504), (357, 19510), (358, 19528), (364, 19696), (367, 19774), (369, 19792), (370, 19828), (371, 19846), (372, 19852), (376, 19960), (381, 20050), (382, 20071), (383, 20077), (384, 20092), (385, 20101), (387, 20182), (388, 20185), (390, 20230), (392, 20353), (397, 20452), (399, 20482), (402, 20503), (403, 20566), (406, 20602), (408, 20647), (413, 20689), (414, 20716), (415, 20749), (417, 20779), (418, 20836), (419, 20851),

Gene: Trax\_26 Start: 15821, Stop: 22654, Start Num: 1

Candidate Starts for Trax\_26:

(Start: 1 @15821 has 3 MA's), (2, 15881), (4, 15947), (5, 15953), (6, 15965), (7, 15992), (9, 16025), (13, 16187), (14, 16247), (16, 16268), (18, 16298), (21, 16331), (23, 16343), (27, 16385), (30, 16439), (34, 16508), (36, 16559), (40, 16601), (44, 16649), (45, 16655), (47, 16745), (48, 16769), (49, 16811), (52, 16862), (55, 16898), (56, 16916), (62, 17042), (65, 17084), (67, 17093), (69, 17120), (71, 17138), (73, 17171), (75, 17186), (76, 17195), (77, 17207), (82, 17258), (84, 17303), (88, 17375), (89, 17384), (90, 17408), (91, 17435), (92, 17459), (93, 17486), (95, 17537), (96, 17540), (98, 17561), (100, 17579), (101, 17600), (102, 17603), (103, 17636), (105, 17666), (106, 17690), (107, 17693), (109, 17699), (112, 17717), (113, 17723), (116, 17780), (119, 17807), (120, 17825), (123, 17867), (125, 17900), (127, 17918), (129, 17945), (131, 17975), (132, 17978), (133, 17981), (134, 18047), (140, 18137), (142, 18149), (144, 18167), (146, 18206), (149, 18227), (150, 18230), (151, 18233), (152, 18236), (153, 18245), (158, 18272), (160, 18293), (161, 18302), (163, 18335), (164, 18338), (168, 18371), (170, 18377), (177, 18425), (180, 18455), (181, 18461), (182, 18470), (183, 18479), (189, 18518), (195, 18551), (196, 18572), (197, 18575), (198, 18581), (199, 18596), (200, 18599), (202, 18620), (206, 18674), (209, 18719), (212, 18743), (214, 18764), (219, 18806), (222, 18839), (228, 18926), (229, 18938), (230, 18947), (235, 19004), (237, 19025), (241, 19073), (243, 19106), (244, 19109), (248, 19148), (249, 19166), (251, 19205), (257, 19244), (260, 19286), (266, 19349), (274, 19514), (275, 19547), (282, 19715), (283, 19733), (284, 19745), (287, 19781), (288, 19820), (289, 19823), (304, 20000), (309, 20123), (312, 20240), (313, 20270), (314, 20276), (315, 20309), (316, 20315), (318, 20336), (321, 20345), (325, 20423), (326, 20432), (327, 20507), (328, 20531), (330, 20573), (331, 20600), (332, 20609), (333, 20645), (334, 20648), (335, 20705), (336, 20741), (337, 20750), (338, 20819), (339, 20873), (342, 20930), (343, 20939), (344, 20951), (346, 20990), (347, 20993), (348, 21011), (349, 21044), (351, 21071), (354, 21212), (356, 21263), (359, 21293), (363, 21440), (367, 21545), (368, 21560), (373, 21710), (374, 21722), (380, 21824), (386, 21968), (389, 21995), (391, 22085), (393, 22172), (394, 22175), (395, 22193), (396, 22196), (397, 22229), (398, 22232), (402, 22280), (405, 22370), (409, 22433), (410, 22439), (411, 22448), (414, 22493), (420, 22637),