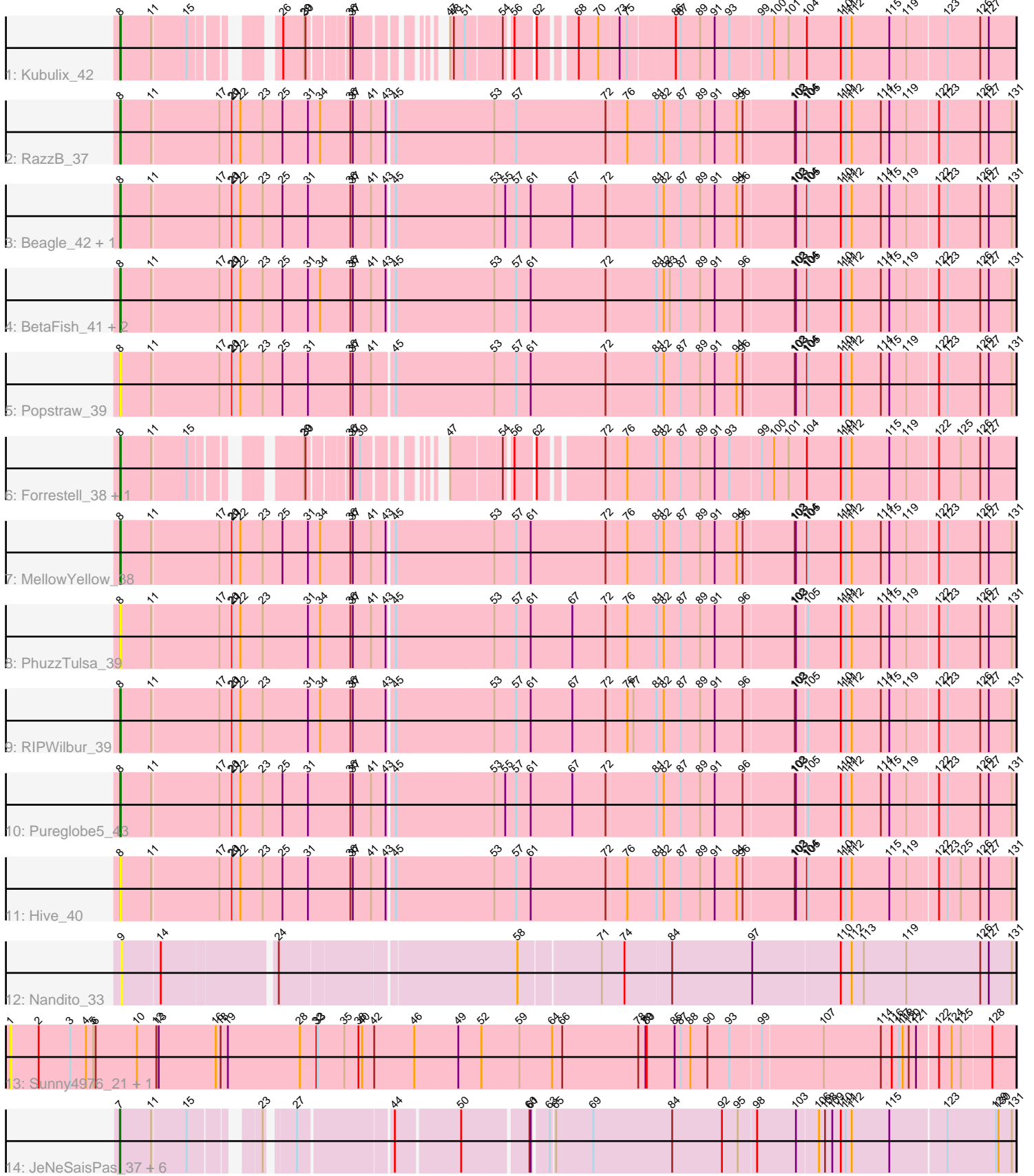


Pham 309145



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 309145 Report

This analysis was run 06/27/26 on database version 652.

Pham number 309145 has 25 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Kubulix_42
- Track 2 : RazzB_37
- Track 3 : Beagle_42, Pointis_40
- Track 4 : BetaFish_41, DogYard_41, Odyssey395_43
- Track 5 : Popstraw_39
- Track 6 : Forrestell_38, NyleyClemson_36
- Track 7 : MellowYellow_38
- Track 8 : PhuzzTulsa_39
- Track 9 : RIPWilbur_39
- Track 10 : Pureglobe5_43
- Track 11 : Hive_40
- Track 12 : Nandito_33
- Track 13 : Sunny4976_21, Jazzy4900_22
- Track 14 : JeNeSaisPas_37, Qui_38, Gandionco_39, Marianna39_39, Paella_38, Kureo_39, Elver_38

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

The start number called the most often in the published annotations is 8, it was called in 11 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Beagle_42, BetaFish_41, DogYard_41, Forrestell_38, Hive_40, Kubulix_42, MellowYellow_38, NyleyClemson_36, Odyssey395_43, PhuzzTulsa_39, Pointis_40, Popstraw_39, Pureglobe5_43, RIPWilbur_39, RazzB_37,

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

-

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

- Elver_38, Gandionco_39, Jazzy4900_22, JeNeSaisPas_37, Kureo_39, Marianna39_39, Nandito_33, Paella_38, Qui_38, Sunny4976_21,

Summary by start number:

Start 1:

- Found in 2 of 25 (8.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jazzy4900_22 (FI), Sunny4976_21 (FI),

Start 7:

- Found in 7 of 25 (28.0%) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_38 (FK), Gandionco_39 (FK), JeNeSaisPas_37 (FK), Kureo_39 (FK), Marianna39_39 (FK), Paella_38 (FK), Qui_38 (FK),

Start 8:

- Found in 15 of 25 (60.0%) of genes in pham
- Manual Annotations of this start: 11 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beagle_42 (AP2), BetaFish_41 (AP2), DogYard_41 (AP2), Forrestell_38 (AP2), Hive_40 (AP2), Kubulix_42 (AP2), MellowYellow_38 (AP2), NyleyClemson_36 (AP2), Odyssey395_43 (AP2), PhuzzTulsa_39 (AP2), Pointis_40 (AP2), Popstraw_39 (AP2), Pureglobe5_43 (AP2), RIPWilbur_39 (AP2), RazzB_37 (AP2),

Start 9:

- Found in 1 of 25 (4.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nandito_33 (FH),

Summary by clusters:

There are 4 clusters represented in this pham: AP2, FI, FK, FH,

Info for manual annotations of cluster AP2:

- Start number 8 was manually annotated 11 times for cluster AP2.

Info for manual annotations of cluster FK:

- Start number 7 was manually annotated 3 times for cluster FK.

Gene Information:

Gene: Beagle_42 Start: 30066, Stop: 32198, Start Num: 8

Candidate Starts for Beagle_42:

(Start: 8 @30066 has 11 MA's), (11, 30132), (17, 30291), (20, 30318), (21, 30321), (22, 30339), (23, 30393), (25, 30441), (31, 30504), (36, 30609), (37, 30615), (41, 30660), (43, 30696), (45, 30711), (53, 30951), (55, 30978), (57, 31005), (61, 31041), (67, 31140), (72, 31221), (81, 31341), (82, 31359), (87, 31401), (89, 31449), (91, 31485), (94, 31539), (96, 31554), (102, 31674), (103, 31677), (104, 31698),

(105, 31701), (110, 31782), (111, 31794), (112, 31809), (114, 31878), (115, 31899), (119, 31941),
(122, 32007), (123, 32028), (126, 32109), (127, 32130), (131, 32187),

Gene: BetaFish_41 Start: 30260, Stop: 32392, Start Num: 8

Candidate Starts for BetaFish_41:

(Start: 8 @30260 has 11 MA's), (11, 30326), (17, 30485), (20, 30512), (21, 30515), (22, 30533), (23, 30587), (25, 30635), (31, 30698), (34, 30728), (36, 30803), (37, 30809), (41, 30854), (43, 30890), (45, 30905), (53, 31145), (57, 31199), (61, 31235), (72, 31415), (81, 31535), (82, 31553), (83, 31568), (87, 31595), (89, 31643), (91, 31679), (96, 31748), (102, 31868), (103, 31871), (104, 31892), (105, 31895), (110, 31976), (111, 31988), (112, 32003), (114, 32072), (115, 32093), (119, 32135), (122, 32201), (123, 32222), (126, 32303), (127, 32324), (131, 32381),

Gene: DogYard_41 Start: 29960, Stop: 32092, Start Num: 8

Candidate Starts for DogYard_41:

(Start: 8 @29960 has 11 MA's), (11, 30026), (17, 30185), (20, 30212), (21, 30215), (22, 30233), (23, 30287), (25, 30335), (31, 30398), (34, 30428), (36, 30503), (37, 30509), (41, 30554), (43, 30590), (45, 30605), (53, 30845), (57, 30899), (61, 30935), (72, 31115), (81, 31235), (82, 31253), (83, 31268), (87, 31295), (89, 31343), (91, 31379), (96, 31448), (102, 31568), (103, 31571), (104, 31592), (105, 31595), (110, 31676), (111, 31688), (112, 31703), (114, 31772), (115, 31793), (119, 31835), (122, 31901), (123, 31922), (126, 32003), (127, 32024), (131, 32081),

Gene: Elver_38 Start: 26848, Stop: 28818, Start Num: 7

Candidate Starts for Elver_38:

(Start: 7 @26848 has 3 MA's), (11, 26914), (15, 26995), (23, 27121), (27, 27175), (44, 27388), (50, 27535), (60, 27682), (61, 27685), (63, 27718), (65, 27727), (69, 27808), (84, 28000), (92, 28123), (95, 28159), (98, 28201), (103, 28294), (106, 28345), (108, 28360), (109, 28378), (110, 28399), (111, 28411), (112, 28426), (115, 28519), (123, 28648), (129, 28768), (130, 28774), (131, 28807),

Gene: Forrestell_38 Start: 28753, Stop: 30567, Start Num: 8

Candidate Starts for Forrestell_38:

(Start: 8 @28753 has 11 MA's), (11, 28819), (15, 28900), (29, 29080), (30, 29083), (36, 29158), (37, 29164), (39, 29182), (47, 29287), (54, 29401), (56, 29416), (62, 29458), (72, 29590), (76, 29638), (81, 29710), (82, 29728), (87, 29770), (89, 29818), (91, 29854), (93, 29890), (99, 29965), (100, 29992), (101, 30028), (104, 30067), (110, 30151), (111, 30163), (112, 30178), (115, 30268), (119, 30310), (122, 30376), (125, 30430), (126, 30478), (127, 30499),

Gene: Gandionco_39 Start: 27370, Stop: 29340, Start Num: 7

Candidate Starts for Gandionco_39:

(Start: 7 @27370 has 3 MA's), (11, 27436), (15, 27517), (23, 27643), (27, 27697), (44, 27910), (50, 28057), (60, 28204), (61, 28207), (63, 28240), (65, 28249), (69, 28330), (84, 28522), (92, 28645), (95, 28681), (98, 28723), (103, 28816), (106, 28867), (108, 28882), (109, 28900), (110, 28921), (111, 28933), (112, 28948), (115, 29041), (123, 29170), (129, 29290), (130, 29296), (131, 29329),

Gene: Hive_40 Start: 30141, Stop: 32273, Start Num: 8

Candidate Starts for Hive_40:

(Start: 8 @30141 has 11 MA's), (11, 30207), (17, 30366), (20, 30393), (21, 30396), (22, 30414), (23, 30468), (25, 30516), (31, 30579), (36, 30684), (37, 30690), (41, 30735), (43, 30771), (45, 30786), (53, 31026), (57, 31080), (61, 31116), (72, 31296), (76, 31344), (81, 31416), (82, 31434), (87, 31476), (89, 31524), (91, 31560), (94, 31614), (96, 31629), (102, 31749), (103, 31752), (104, 31773), (105, 31776), (110, 31857), (111, 31869), (112, 31884), (115, 31974), (119, 32016), (122, 32082), (123, 32103), (125, 32136), (126, 32184), (127, 32205), (131, 32262),

Gene: Jazzy4900_22 Start: 15675, Stop: 18098, Start Num: 1

Candidate Starts for Jazzy4900_22:

(1, 15675), (2, 15744), (3, 15822), (4, 15861), (5, 15879), (6, 15885), (10, 15987), (12, 16035), (13, 16041), (16, 16182), (18, 16194), (19, 16212), (28, 16389), (32, 16425), (33, 16428), (35, 16494), (38, 16527), (40, 16536), (42, 16566), (46, 16665), (49, 16770), (52, 16827), (59, 16920), (64, 17001), (66, 17025), (78, 17208), (79, 17226), (80, 17229), (85, 17295), (87, 17310), (88, 17334), (90, 17376), (93, 17430), (99, 17505), (107, 17649), (114, 17790), (116, 17817), (117, 17835), (118, 17844), (120, 17859), (121, 17877), (122, 17922), (124, 17952), (125, 17973), (128, 18039),

Gene: JeNeSaisPas_37 Start: 27383, Stop: 29353, Start Num: 7

Candidate Starts for JeNeSaisPas_37:

(Start: 7 @27383 has 3 MA's), (11, 27449), (15, 27530), (23, 27656), (27, 27710), (44, 27923), (50, 28070), (60, 28217), (61, 28220), (63, 28253), (65, 28262), (69, 28343), (84, 28535), (92, 28658), (95, 28694), (98, 28736), (103, 28829), (106, 28880), (108, 28895), (109, 28913), (110, 28934), (111, 28946), (112, 28961), (115, 29054), (123, 29183), (129, 29303), (130, 29309), (131, 29342),

Gene: Kubulix_42 Start: 30256, Stop: 32040, Start Num: 8

Candidate Starts for Kubulix_42:

(Start: 8 @30256 has 11 MA's), (11, 30322), (15, 30403), (26, 30538), (29, 30583), (30, 30586), (36, 30661), (37, 30667), (47, 30790), (48, 30799), (51, 30826), (54, 30904), (56, 30919), (62, 30961), (68, 31030), (70, 31075), (73, 31117), (75, 31132), (86, 31237), (87, 31249), (89, 31297), (91, 31333), (93, 31369), (99, 31444), (100, 31471), (101, 31507), (104, 31546), (110, 31630), (111, 31642), (112, 31657), (115, 31747), (119, 31789), (123, 31876), (126, 31951), (127, 31972),

Gene: Kureo_39 Start: 26193, Stop: 28163, Start Num: 7

Candidate Starts for Kureo_39:

(Start: 7 @26193 has 3 MA's), (11, 26259), (15, 26340), (23, 26466), (27, 26520), (44, 26733), (50, 26880), (60, 27027), (61, 27030), (63, 27063), (65, 27072), (69, 27153), (84, 27345), (92, 27468), (95, 27504), (98, 27546), (103, 27639), (106, 27690), (108, 27705), (109, 27723), (110, 27744), (111, 27756), (112, 27771), (115, 27864), (123, 27993), (129, 28113), (130, 28119), (131, 28152),

Gene: Marianna39_39 Start: 27370, Stop: 29340, Start Num: 7

Candidate Starts for Marianna39_39:

(Start: 7 @27370 has 3 MA's), (11, 27436), (15, 27517), (23, 27643), (27, 27697), (44, 27910), (50, 28057), (60, 28204), (61, 28207), (63, 28240), (65, 28249), (69, 28330), (84, 28522), (92, 28645), (95, 28681), (98, 28723), (103, 28816), (106, 28867), (108, 28882), (109, 28900), (110, 28921), (111, 28933), (112, 28948), (115, 29041), (123, 29170), (129, 29290), (130, 29296), (131, 29329),

Gene: MellowYellow_38 Start: 28801, Stop: 30933, Start Num: 8

Candidate Starts for MellowYellow_38:

(Start: 8 @28801 has 11 MA's), (11, 28867), (17, 29026), (20, 29053), (21, 29056), (22, 29074), (23, 29128), (25, 29176), (31, 29239), (34, 29269), (36, 29344), (37, 29350), (41, 29395), (43, 29431), (45, 29446), (53, 29686), (57, 29740), (61, 29776), (72, 29956), (76, 30004), (81, 30076), (82, 30094), (87, 30136), (89, 30184), (91, 30220), (94, 30274), (96, 30289), (102, 30409), (103, 30412), (104, 30433), (105, 30436), (110, 30517), (111, 30529), (112, 30544), (114, 30613), (115, 30634), (119, 30676), (122, 30742), (123, 30763), (126, 30844), (127, 30865), (131, 30922),

Gene: Nandito_33 Start: 25294, Stop: 27339, Start Num: 9

Candidate Starts for Nandito_33:

(9, 25294), (14, 25378), (24, 25627), (58, 26173), (71, 26359), (74, 26413), (84, 26524), (97, 26716), (110, 26920), (112, 26947), (113, 26974), (119, 27079), (126, 27250), (127, 27271), (131, 27328),

Gene: NyleyClemson_36 Start: 28734, Stop: 30548, Start Num: 8

Candidate Starts for NyleyClemson_36:

(Start: 8 @28734 has 11 MA's), (11, 28800), (15, 28881), (29, 29061), (30, 29064), (36, 29139), (37, 29145), (39, 29163), (47, 29268), (54, 29382), (56, 29397), (62, 29439), (72, 29571), (76, 29619), (81, 29691), (82, 29709), (87, 29751), (89, 29799), (91, 29835), (93, 29871), (99, 29946), (100, 29973), (101, 30009), (104, 30048), (110, 30132), (111, 30144), (112, 30159), (115, 30249), (119, 30291), (122, 30357), (125, 30411), (126, 30459), (127, 30480),

Gene: Odyssey395_43 Start: 30085, Stop: 32217, Start Num: 8

Candidate Starts for Odyssey395_43:

(Start: 8 @30085 has 11 MA's), (11, 30151), (17, 30310), (20, 30337), (21, 30340), (22, 30358), (23, 30412), (25, 30460), (31, 30523), (34, 30553), (36, 30628), (37, 30634), (41, 30679), (43, 30715), (45, 30730), (53, 30970), (57, 31024), (61, 31060), (72, 31240), (81, 31360), (82, 31378), (83, 31393), (87, 31420), (89, 31468), (91, 31504), (96, 31573), (102, 31693), (103, 31696), (104, 31717), (105, 31720), (110, 31801), (111, 31813), (112, 31828), (114, 31897), (115, 31918), (119, 31960), (122, 32026), (123, 32047), (126, 32128), (127, 32149), (131, 32206),

Gene: Paella_38 Start: 26850, Stop: 28820, Start Num: 7

Candidate Starts for Paella_38:

(Start: 7 @26850 has 3 MA's), (11, 26916), (15, 26997), (23, 27123), (27, 27177), (44, 27390), (50, 27537), (60, 27684), (61, 27687), (63, 27720), (65, 27729), (69, 27810), (84, 28002), (92, 28125), (95, 28161), (98, 28203), (103, 28296), (106, 28347), (108, 28362), (109, 28380), (110, 28401), (111, 28413), (112, 28428), (115, 28521), (123, 28650), (129, 28770), (130, 28776), (131, 28809),

Gene: PhuzzTulsa_39 Start: 30045, Stop: 32177, Start Num: 8

Candidate Starts for PhuzzTulsa_39:

(Start: 8 @30045 has 11 MA's), (11, 30111), (17, 30270), (20, 30297), (21, 30300), (22, 30318), (23, 30372), (31, 30483), (34, 30513), (36, 30588), (37, 30594), (41, 30639), (43, 30675), (45, 30690), (53, 30930), (57, 30984), (61, 31020), (67, 31119), (72, 31200), (76, 31248), (81, 31320), (82, 31338), (87, 31380), (89, 31428), (91, 31464), (96, 31533), (102, 31653), (103, 31656), (105, 31680), (110, 31761), (111, 31773), (112, 31788), (114, 31857), (115, 31878), (119, 31920), (122, 31986), (123, 32007), (126, 32088), (127, 32109), (131, 32166),

Gene: Pointis_40 Start: 30083, Stop: 32215, Start Num: 8

Candidate Starts for Pointis_40:

(Start: 8 @30083 has 11 MA's), (11, 30149), (17, 30308), (20, 30335), (21, 30338), (22, 30356), (23, 30410), (25, 30458), (31, 30521), (36, 30626), (37, 30632), (41, 30677), (43, 30713), (45, 30728), (53, 30968), (55, 30995), (57, 31022), (61, 31058), (67, 31157), (72, 31238), (81, 31358), (82, 31376), (87, 31418), (89, 31466), (91, 31502), (94, 31556), (96, 31571), (102, 31691), (103, 31694), (104, 31715), (105, 31718), (110, 31799), (111, 31811), (112, 31826), (114, 31895), (115, 31916), (119, 31958), (122, 32024), (123, 32045), (126, 32126), (127, 32147), (131, 32204),

Gene: Popstraw_39 Start: 29869, Stop: 32001, Start Num: 8

Candidate Starts for Popstraw_39:

(Start: 8 @29869 has 11 MA's), (11, 29935), (17, 30094), (20, 30121), (21, 30124), (22, 30142), (23, 30196), (25, 30244), (31, 30307), (36, 30412), (37, 30418), (41, 30463), (45, 30514), (53, 30754), (57, 30808), (61, 30844), (72, 31024), (81, 31144), (82, 31162), (87, 31204), (89, 31252), (91, 31288), (94, 31342), (96, 31357), (102, 31477), (103, 31480), (104, 31501), (105, 31504), (110, 31585), (111, 31597), (112, 31612), (114, 31681), (115, 31702), (119, 31744), (122, 31810), (123, 31831), (126, 31912), (127, 31933), (131, 31990),

Gene: Pureglobe5_43 Start: 30266, Stop: 32398, Start Num: 8

Candidate Starts for Pureglobe5_43:

(Start: 8 @30266 has 11 MA's), (11, 30332), (17, 30491), (20, 30518), (21, 30521), (22, 30539), (23, 30593), (25, 30641), (31, 30704), (36, 30809), (37, 30815), (41, 30860), (43, 30896), (45, 30911), (53,

31151), (55, 31178), (57, 31205), (61, 31241), (67, 31340), (72, 31421), (81, 31541), (82, 31559), (87, 31601), (89, 31649), (91, 31685), (96, 31754), (102, 31874), (103, 31877), (105, 31901), (110, 31982), (111, 31994), (112, 32009), (114, 32078), (115, 32099), (119, 32141), (122, 32207), (123, 32228), (126, 32309), (127, 32330), (131, 32387),

Gene: Qui_38 Start: 26850, Stop: 28820, Start Num: 7

Candidate Starts for Qui_38:

(Start: 7 @26850 has 3 MA's), (11, 26916), (15, 26997), (23, 27123), (27, 27177), (44, 27390), (50, 27537), (60, 27684), (61, 27687), (63, 27720), (65, 27729), (69, 27810), (84, 28002), (92, 28125), (95, 28161), (98, 28203), (103, 28296), (106, 28347), (108, 28362), (109, 28380), (110, 28401), (111, 28413), (112, 28428), (115, 28521), (123, 28650), (129, 28770), (130, 28776), (131, 28809),

Gene: RIPWilbur_39 Start: 29399, Stop: 31531, Start Num: 8

Candidate Starts for RIPWilbur_39:

(Start: 8 @29399 has 11 MA's), (11, 29465), (17, 29624), (20, 29651), (21, 29654), (22, 29672), (23, 29726), (31, 29837), (34, 29867), (36, 29942), (37, 29948), (43, 30029), (45, 30044), (53, 30284), (57, 30338), (61, 30374), (67, 30473), (72, 30554), (76, 30602), (77, 30617), (81, 30674), (82, 30692), (87, 30734), (89, 30782), (91, 30818), (96, 30887), (102, 31007), (103, 31010), (105, 31034), (110, 31115), (111, 31127), (112, 31142), (114, 31211), (115, 31232), (119, 31274), (122, 31340), (123, 31361), (126, 31442), (127, 31463), (131, 31520),

Gene: RazzB_37 Start: 28547, Stop: 30679, Start Num: 8

Candidate Starts for RazzB_37:

(Start: 8 @28547 has 11 MA's), (11, 28613), (17, 28772), (20, 28799), (21, 28802), (22, 28820), (23, 28874), (25, 28922), (31, 28985), (34, 29015), (36, 29090), (37, 29096), (41, 29141), (43, 29177), (45, 29192), (53, 29432), (57, 29486), (72, 29702), (76, 29750), (81, 29822), (82, 29840), (87, 29882), (89, 29930), (91, 29966), (94, 30020), (96, 30035), (102, 30155), (103, 30158), (104, 30179), (105, 30182), (110, 30263), (111, 30275), (112, 30290), (114, 30359), (115, 30380), (119, 30422), (122, 30488), (123, 30509), (126, 30590), (127, 30611), (131, 30668),

Gene: Sunny4976_21 Start: 15675, Stop: 18098, Start Num: 1

Candidate Starts for Sunny4976_21:

(1, 15675), (2, 15744), (3, 15822), (4, 15861), (5, 15879), (6, 15885), (10, 15987), (12, 16035), (13, 16041), (16, 16182), (18, 16194), (19, 16212), (28, 16389), (32, 16425), (33, 16428), (35, 16494), (38, 16527), (40, 16536), (42, 16566), (46, 16665), (49, 16770), (52, 16827), (59, 16920), (64, 17001), (66, 17025), (78, 17208), (79, 17226), (80, 17229), (85, 17295), (87, 17310), (88, 17334), (90, 17376), (93, 17430), (99, 17505), (107, 17649), (114, 17790), (116, 17817), (117, 17835), (118, 17844), (120, 17859), (121, 17877), (122, 17922), (124, 17952), (125, 17973), (128, 18039),