**CLAIMS**

1. A bioluminescent complex comprising:

(a) a first fusion polypeptide comprising:

(i) a polypeptide comprising an amino acid sequence having less than 100% and greater than 90% sequence identity with SEQ ID NO: 440; and

(ii) a first interaction polypeptide that is configured to form a complex with a second interaction polypeptide upon contact of the first interaction polypeptide and the second interaction polypeptide;

(b) a second fusion polypeptide comprising:

(i) a complement peptide comprising an amino acid sequence having less than 100% and greater than 70% sequence identity with SEQ ID NO: 2, wherein a detectable bioluminescent signal is produced in the presence of a substrate when the polypeptide contacts the complement peptide that is greater than the bioluminescent signal produced by the polypeptide and substrate in the absence of the complement peptide; and

(i) the second interaction polypeptide.