TARGETED SPLIT BIOMOLECULAR CONJUGATES FOR THE TREATMENT OF DISEASES, MALIGNANCIES AND DISORDERS, AND METHODS OF THEIR PRODUCTION

Abstract

The present invention is directed to compositions and methods for the production of split-biomolecular conjugates for the directed targeting of nucleic acids and polypeptides. More preferably, the compositions and methods allow for the use of the split biomolecular conjugates for the treatment of diseases, malignancies, disorders and screening. In some embodiments, the split biomolecular conjugates comprise split effector protein fragments conjugated to a probe, and interaction of both probes with a target nucleic acid or target polypeptide, such as a pathogenic nucleic acid sequence or pathogenic protein, brings a the split-effector fragments together to facilitate the reassembly of the effector molecule. Depending on the effector molecule, the protein complementation results in a cellular effect, in particular for the treatment of diseases, malignancies and disorders.

Fig 1.