The Twinkle Factory

FIRE mate & FIRE tag

FIRE mate and **FIRE tag** are two small domains that can interact together in a reversible fashion in presence of small fluorogenic molecular glues such as **match 550**. When the two domains interact, the fluorescence of **match 550** increases 100-fold, enabling to see the newly induced interaction by fluorescence microscopy

DNA sequence coding for FIRE mate

atggagcatgttgcctttggcagtgaggacatcgagaacactctggccaatatggacgacgaacaactggataggttggcctttggcgtaattcagctcgat
ggtgacgggaatatcctgctgtacaatgctgctgaaggggacatcactggcagagatcccaaacaggtgattgggaagaacttcttcaaggatgttgcacc
tggaacggatactcccgagttttacggcaaattcaaggaaggcgcagcgtcagggaatctgaacaccatgttcgaatggacgataccgacaagcagggg
accaaccaaggtcaaggtgcacttgaagaaagccctttcc

DNA sequence coding for FIRE tag

ggtgacagatattgggtctttgtgaaacgggtg

Reference

FIRE mate and **FIRE tag** were initially disclosed in Bottone *et al*. A fluorogenic chemically induced dimerization technology for controlling, imaging and sensing protein proximity. *Nature Methods* **20,** 1553–1562 (2023). https://doi.org/10.1038/s41592-023-01988-8

Notice to User

FIRE mate and **FIRE tag** and/or their use may be covered by one or more of the following patents and patent applications:

- EP 3 164 411; JP 2017-527,261; US 10,138,278 (Fluorogen activating and shifting tag (FAST));
- EP 3 719 007; US 2022-0169682 (Split photoactive yellow protein complementation system and uses thereof).

These patents and patent applications are owned by CNRS (France), PSL (France), Sorbonne Université (France), and/or Institut Curie (France), and exclusively licensed to Twinkle Bioscience. The Buyer/User has a non-exclusive license to use this system or any component thereof for research use only. Commercial use of this system or any components thereof requires a license from Twinkle Bioscience S.A.S, 45 rue d'Ulm, 75005 Paris, France. For detailed information, e-mail contact@the-twinkle-factory.com