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splitFAST2 a.k.a. RspA-splitFAST

Derived from FAST, a chemogenetic fluorescent protein reporter, splitFAST2 is a reporter of protein-protein interaction with rapid and reversible complementation.

Protein sequence of RspA-NFAST

METVRFGGDDIENSLAKMDDKALDKLAFGAIQLDGNGKIIHYNAAEGTITGRDPKTVIGKNFFT
DVAPGTQSKEFQGRFKEGVQKGDLNTMFEWMIPTSRGPTKVKVHMKKAMT

Protein sequence of RspA-CFAST

GDSFWIFVKRL

DNA sequence of RspA-NFAST

atggagaccgtgagattcggcggcgacgacatcgagaacagcctggccaagatggacgacaagg
ccctggacaagctggccttcggcgccatccagctggacggcaacggcaagatcatccactacaa
cgccgccgagggcaccatcaccggcagagaccccaagaccgtgatcggcaagaacttcttcacc
gacgtggcccccggcacccagagcaaggagttccagggcagattcaaggagggcgtgcagaagg
gcgacctgaacaccatgttcgagtggatgatccccaccagcagaggccccaccaaggtgaaggt
gcacatgaagaaggccatgacc

DNA sequence of RspA-CFAST

ggcgacagcttctggatcttcgtgaagagactg

Reference

splitFAST2 was initially disclosed in Rakotoarison *et al*. Improving Split Reporters of Protein−Protein Interactions through Orthology-Based Protein Engineering. *ACS Chemical Biology*, 19, 428–441 (2024).

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Notice to User

splitFAST2 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 3 404 022; US 2020-0124611 (Membrane-impermeant fluorogenic chromophores);
- EP 3 719 007; US 2022-0169682 (Split photoactive yellow protein complementation system and uses thereof).

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