



The Twinkle Factory
Stain different, tag FAST.

tdFAST2

tdFAST2 is a protein tag of 256 amino acids (28 kDa) obtained by tandemization of FAST2. tdFAST2 can be fused to the N- or C-terminus of any protein of interest. tdFAST2 forms non-covalent and reversible fluorescent molecular assemblies with various ^{TF}Fluorogens of the Twinkle Factory, enabling to fluorescently label tdFAST2-tagged proteins in vitro, in live cells and in multicellular organisms.

tdFAST2 sequence

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MEHVAFGSEDIENLAKMDDGQLDGLAFGAIQLDGDGNILQYNAAEGDITGRDPKQVIGKNFFKDVA  
PGTDSPEFYGKFKKEGVASGNLNTMFEWMIPTSRGPTKVKIHMKKALSGDSYWWFVKRVGGSGGGGEHV  
AFGSEDIENLAKMDDGQLDGLAFGAIQLDGDGNILQYNAAEGDITGRDPKQVIGKNFFKDVA  
PGTDSPEFYGKFKKEGVASGNLNTMFEWMIPTSRGPTKVKIHMKKALSGDSYWWFVKRV
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DNA sequence coding for tFAST2

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atggaacatgtcgccctcggcagcgaggatcgagaacactctggctaaagatggatgacggggcaactggacggcctggcattcgg  
ggccattcaactggacggggacgtaataattctccagtacaatgcagctgaaggtgacataactggacgtgacctaacaagtatt  
ggcaagaatttctcaagatgttgcctccggcaccgattcacctgagtttacgggaagttcaagagggcgttgctccggcaacctc  
aacactatgttcgaatggatgataccgacaagcagagggccaaccaaggtaaaaattcatatgaagaagctctgtctggagactcta  
ttgggtgtttgtgaagagagatcgccggcggtcctccggaggaggagaacacgttgccttggctctgaggatcgaataacgctggc  
caaatggatgacggtcagctggatggcctggcattcggagccatacagcttgacggcgatggaaacatcctccagtacaacgcccgc  
ggaggggtgacattaccggtcgcgatccaaaacaggtattggcaagaactcttaaggacgttgacccgggactgactctcccgaat  
tttacggaaagtcaaggaaggggtggcatctggaatcttaatacaatgtttgaatggatgattcctactagtagaggaccaacaag  
gtgaagatccacatgaagaagccttgcggcgactcctactgggtgtttgtgaaacgggtg
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Note: tdFAST2 was originally named "td-iFAST" in Tebo et al. Biochemistry 57, 5648-5653 (2018).

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EP 3 164 411; JP 2017-527,261; WO 2016/001,437 (Fluorogen activating and shifting tag (FAST))

EP17305591; PCT/EP2018/063146 (Membrane-impermeant fluorogenic chromophores)

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