TMP-PEG3-Amine, TFA salt

The trimethoprim-PEG3-amine (TMP-PEG3-amine) can be conjugated to various probes to make trimethoprim-based chemical tag (TMP-tag).



Product attributes

Product Description

The trimethoprim-PEG3-amine (TMP-PEG3-amine) can be conjugated to various probes to make trimethoprim-based chemical tag (TMP-tag). The TMP-tag is based on the high affinity ($K_d \sim 1$ nM) binding of TMP to the *E.coli* dihydrofolate reductase (eDHFR). The target protein, fused to eDHFR via standard molecular cloning technology, is labeled by the TMP-probe in a non-covalent manner. The low affinity of TMP with mammalian DHFR ($K_d > 1$ uM) ensures minimal background. The TMP-tag has been demonstrated to enable protein visualization and manipulation of both intracellular and surface targets in mammalian cells (1-4).

The TMP-PEG-amine can be used in combination with our $\underline{\text{Mix-n-StainTM Small Ligand Labeling Kits}}$ to generate fluorescent chemical tags without purification for cell surface or intracellular staining.

- White solid soluble in DMF or DMSO
- MW: 678.71

References

- 1. Miller, L.M et al (2005) Nat. Methods 2:255-257.
- 2, Calloway, NT. et al (2007) ChemBioChem 8:767-774.
- 3. Wombacher, R. et al (2010) Nat. Methods 7:717-719
- 4. Long, MJ. et al (2011) J Am Chem Soc. 133:10006-10009

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