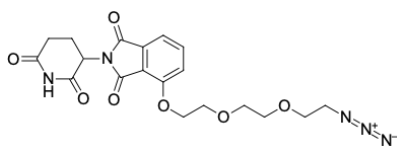

Thalidomide-O-PEG2-azide

<http://www.lumiprobe.com/p/thalidomide-o-peg2-azide>

Thalidomide-containing building block with PEG2-linker and azide function group, which can be conjugated to alkyne-functionalized linkers and target protein ligands through click chemistry reactions.

Proteolysis targeting chimeras (PROTACs) are cell-permeable heterobifunctional molecules that can remove specific proteins from the cell. One end of such molecule contains a ligand to bind to the target, and the second end recruits the E3 ligase complex. Close proximity results in substrate polyubiquitination and subsequent protein degradation by cellular proteasome.

There are several types of E3 ligases that are practically suitable for such a purpose. Thalidomide is the ligand capable of recruiting Cereblon (CRBN) E3 ligase.



Structure of Thalidomide-O-PEG2-Azide

General properties

Appearance: off-white solid

Molecular weight: 431.41

Molecular formula: C₁₉H₂₁N₅O₇

Solubility: good in polar organic solvents: ethyl acetate, THF, DMF; poor in diethyl ether, water

Quality control: NMR ¹H and HPLC-MS (95+%)

Storage conditions: 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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