

Thalidomide-O-PEG2-amine

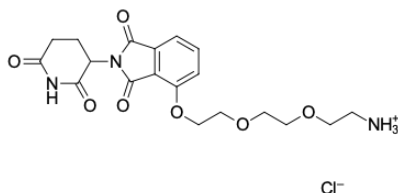
<http://www.lumiprobe.com/p/thalidomide-o-peg2-amine>

Thalidomide-containing building block with PEG2-linker and amino group, which can be conjugated to other functionalized linkers and target protein ligands.

The amino group is highly reactive and can undergo reactions with carboxylic acids, activated esters (NHS, STP, etc.), carbonyls (such as ketones and aldehydes), and more.

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-amine hydrochloride

General properties

- Appearance: white crystalline solid
- Molecular weight: 441.86
- CAS number: 1957236-10-0 (hydrochloride)
- Molecular formula: C₁₉H₂₄ClN₃O₇
- Solubility: DMF, DCM, methanol
- 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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