

Product Data Sheet

Product Name: (±)-Thalidomide-d4

Cat. No.: GC46008

Chemical Properties

Cas. No. 1219177-18-0

SMILES O=C(C1=C2C([2H])=C([2H])C([2H])=C1[2H])N(C3C(NC(CC3)=O)=O)C2=O

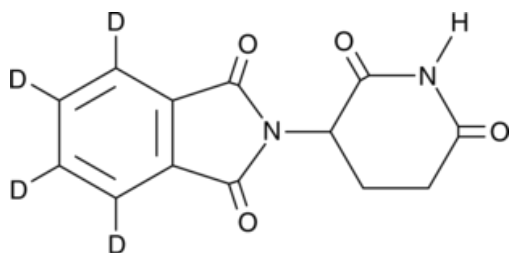
Formula C₁₃H₆D₄N₂O₄ M.Wt 262.3

Solubility DMF: 12 mg/ml, DMSO: 12 mg/ml, DMSO:PBS (pH 7.2) (1:1): 0.11 mg/ml
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

(±)-Thalidomide-d4 is intended for use as an internal standard for the quantification of (±)-thalidomide by GC- or LC-MS. (±)-Thalidomide is an immunomodulatory and antiproliferative compound that interacts directly with the protein CRBN (IC₅₀ = 8.5 nM), a ubiquitously-expressed E3 ligase, and CRBN-DDB1 complexes.^{1,2}

[1. Ito, T., Ando, H., Suzuki, T., et al. Identification of a primary target of thalidomide teratogenicity. *Science* 327(5971), 1345-1350 (2010).] [2. Lopez-Girona, A., Mendy, D., Miller, K., et al. Cereblon is a direct protein target for immunomodulatory and antiproliferative activities of lenalidomide and pomalidomide. *Leukemia* 26(11), 2326-2335 (2012).

Caution: Product has not been fully validated for medical applications. For research use only.

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