

Product Data Sheet

Product Name: Lapatinib-d4 (tosylate)

Cat. No.: GC40222

Chemical Properties

Cas. No. 2749856-05-9

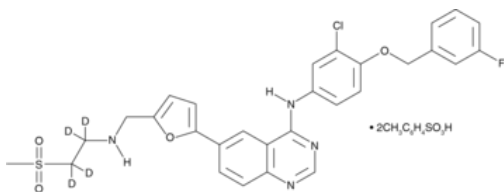
Formula C₂₉H₂₂ClD₄FN₄O₄S • 2C₇H₈O₃S M.Wt 929.5

Solubility Soluble in DMSO Storage Store at -20°C

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

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

Structure



Background

Lapatinib-d4 is intended for use as an internal standard for the quantification of lapatinib by GC- or LC-MS. Lapatinib is a dual inhibitor of the EGF receptor (EGFR) and ErbB2 (IC₅₀s = 19 and 3 nM, respectively). It inhibits the growth of EGFR-overexpressing A431 skin cancer and ErbB2-overexpressing SK-BR-3 breast cancer cells (IC₅₀s = 0.14 and 0.124 μM, respectively). Lapatinib also inhibits the growth of ErbB2-amplified OD19 esophageal and NCI-N87 gastric cancer cells (IC₅₀s = 0.09 and 0.01 μM, respectively) as well as several types of gastric cancer cells in which ErbB2 is not amplified (IC₅₀s = 0.35-8.58 μM). It induces apoptosis in NCI-N87 and OD19 cells when used at a concentration of 1 μM. Lapatinib (50 mg/kg) reduces tumor growth in a BT474 breast cancer mouse xenograft model. It also reduces tumor growth in an NCI-N87 mouse xenograft model when administered at a dose of 100 mg/kg and induces tumor regression when used in combination with trastuzumab. Formulations containing lapatinib have been used in combination with other therapeutics in the treatment of ErbB2/HER2-overexpressing breast cancer.

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

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