

Product Data Sheet

Product Name: PD 0332991-d8

Cat. No.: GC40092

Chemical Properties

Cas. No. 1628752-83-9

SMILES O=C1N(C2CCCC2)C3=NC(NC4=NC=C(N5C([2H])([2H])C([2H])([2H])NC([2H])([2H])C5([2H])([2H])C=C4)=NC=C3C(C)=C1C(C)=O

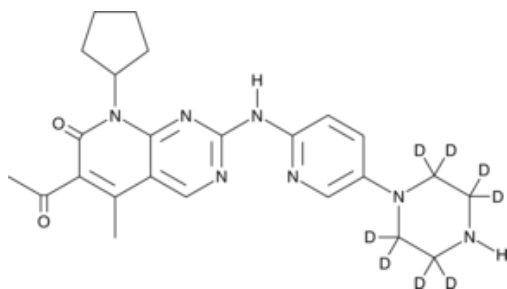
Formula C₂₄H₂₁D₈N₇O₂ M.Wt 455.6

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

PD 0332991-d8 is intended for use as an internal standard for the quantification of PD 0332991 by GC- or LC-MS. PD 0332991 is an orally active, selective inhibitor of the cyclin D kinases Cdk4 (IC₅₀ = 11 nM) and Cdk6 (IC₅₀ = 16 nM) with no activity against a panel of 36 additional protein kinases. It has been reported to have antiproliferative activity against retinoblastoma-positive tumor cells, blocking retinoblastoma phosphorylation and inducing G1 arrest at nanomolar concentrations. PD 0332991 can inhibit the growth of certain ER-positive or HER2-amplified breast cancer cells (IC₅₀s as low as 4 nM) and demonstrates synergy with tamoxifen and trastuzumab, respectively. PD 0332991 inhibition of Cdk4 activity has been used to demonstrate a role for insulin-activated cyclin D1-Cdk4 signaling in the control of glucose metabolism that is independent of cell cycle progression.

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

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