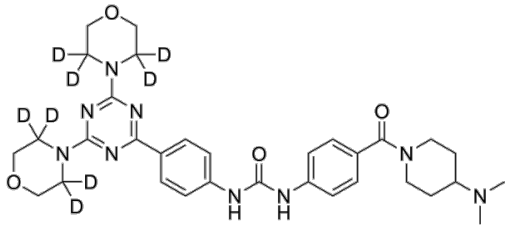
Product Data Sheet

Product Name: Gedatolisib-d 8
Cat. No.: GC80852

Chemical Properties

Cas. No.			
Formula	$C_{32}H_{33}D_8N_9O_4$	M.Wt	623.78
Solubility	DMSO: 7.14 mg/mL (11.45 mM; ultrasonic and warming and heat to 60°C)	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

Gedatolisib -d 8 (PKI-587-d 8) is the deuterium labeled Gedatolisib. Gedatolisib (PKI-587) is a highly potent dual inhibitor of PI3Kα, PI3Kγ, and mTOR with IC_{50} s of 0.4 nM, 5.4 nM and 1.6 nM, respectively. Gedatolisib is equally effective in both complexes of mTOR, mTORC1 and mTORC2 [1] [2].

In Vitro, Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into

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drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs.

References:

[1]. Venkatesan AM, et al. Bis(morpholino-1,3,5-triazine) derivatives: potent adenosine 5'-triphosphate competitive phosphatidylinositol-3-kinase/mammalian target of rapamycin inhibitors: discovery of compound 26 (PKI-587), a highly efficacious dual inhibitor. J Med Chem. 2010, 53(6), 2636-2645.
[2]. Freitag H, et al. Inhibition of mTOR's Catalytic Site by PKI-587 Is a Promising Therapeutic Option for Gastroenteropancreatic Neuroendocrine Tumor Disease. Neuroendocrinology. 2017;105(1):90-104.

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