

Product Data Sheet

Product Name: GW2580-d6

Cat. No.: GC72816

Chemical Properties

Cas. No. 2733770-48-2

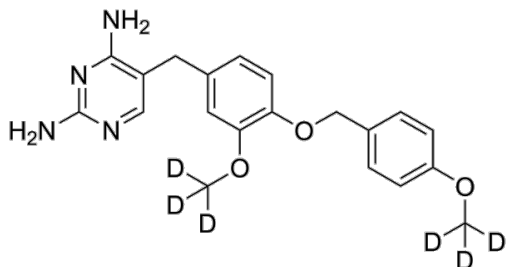
Formula $C_{20}H_{16}D_6N_4O_3$ M.Wt 372.45

Solubility DMSO : 100 mg/mL (268.49 mM; ultrasonic and warming and heat to 60°C) Storage -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

GW2580-d6 is the deuterium labeled GW2580. GW2580 is an orally bioavailable and selective inhibitor of c-Fms kinase which completely inhibits human cFMS kinase in vitro at 0.06 μ M. GW2580 acts as a competitive inhibitor of ATP binding to the cFMS kinase and inhibits colony-stimulating-factor-1 signaling.

Stable heavy isotopes of drogen, carbon, and other elements have been incorporated into drug

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

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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[1].

References:

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Conway JG, et al. Inhibition of colony-stimulating-factor-1 signaling in vivo with the orally bioavailable cFMS kinase inhibitor GW2580. *Proc Natl Acad Sci U S A*. 2005 Nov 1;102(44):16078-83.
- [3]. Priceman SJ, et al. Targeting distinct tumor-infiltrating myeloid cells by inhibiting CSF-1 receptor: combating tumor evasion of antiangiogenic therapy. *Blood*. 2010 Feb 18;115(7):1461-71
- [4]. Conway JG, et al. Effects of the cFMS kinase inhibitor 5-(3-methoxy-4-((4-methoxybenzyl)oxy)benzyl)pyrimidine-2,4-diamine (GW2580) in normal and arthritic rats. *J Pharmacol Exp Ther*. 2008 Jul;326(1):41-50.

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