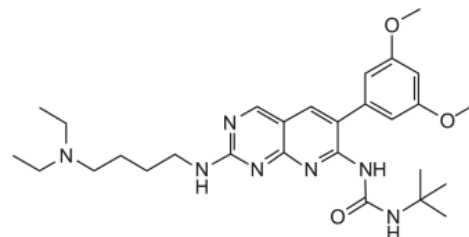


# PD173074

Catalog Number: ST10034



Size	2 mg
Description	PD173074 is an ATP-competitive FGFR1 and FGFR3 inhibitor ( $IC_{50} = 21.5$ and $5$ nM respectively) and also inhibits FGFR2, FGFR4, and VEGFR2. Through its interaction with FGF receptors, it has been found to suppress tumor growth. PD173074 has also been shown to inhibit proliferation and differentiation of oligodendrocyte progenitors. It suppresses the differentiation of mouse ESCs and maintains the undifferentiated state. In human ESCs, PD173074 has been shown to promote differentiation or maintenance in a naïve state.
Molecular Weight	523.67
Molecular Formula	$C_{28}H_{41}N_7O_3$
Chemical Name	1-tert-butyl-3-[2-[4-(diethylamino)butylamino]-6-(3,5-dimethoxyphenyl)pyrido[2,3-d]pyrimidin-7-yl]urea
CAS Number	219580-11-7
PubChem Identifier	1401
Appearance	Yellow solid
Purity	>97% by HPLC analysis
Solubility	Soluble in DMSO at 100 mM and ethanol at 100 mM
Reconstitution	For a 10 mM concentrated stock solution, reconstitute the compound by adding 382 $\mu$ L of DMSO to the entire contents of vial. If precipitate is observed, warm the solution to 37°C for 2 to 5 minutes.
Recommended Usage	For use in cell culture, warm medium just prior to adding the reconstituted compound. Once the compound is added, mix and filter-sterilize the medium using a 0.2 $\mu$ M low-protein binding filter. Note: for most cells, the maximum tolerance to DMSO is less than 0.5%.
Storage and Stability	Solid: Shipped at room temperature. Store at -20°C. Stable for 6 months when stored as directed. Solution: Following reconstitution, store aliquots in tightly sealed vials at -20°C. Avoid repeated freeze-thaw cycles.
References	<p>Hanna, J., et al. (2010) Human embryonic stem cells with biological and epigenetic characteristics similar to those of mouse ESCs. <i>Proc Natl Acad Sci USA</i> 107(20): 9222-9227. PMID: 20442331.</p> <p>Mohammadi, M., et al. (1998) Crystal structure of an angiogenesis inhibitor bound to the FGF receptor tyrosine kinase domain. <i>EMBO J</i> 17(20): 5896-5904. PMID: 9774334.</p> <p>Ying, Q.L., et al. (2008) The ground state of embryonic stem cell self-renewal. <i>Nature</i> 453(7194): 519-523. PMID: 18497825.</p>

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