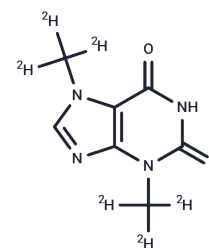


Theobromine-D6

Chemical Properties

CAS No. :	117490-40-1
Formula:	C7H2D6N4O2
Molecular Weight:	186.2
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Theobromine-D6 is intended for use as an internal standard for the quantification of theobromine by GC- or LC-MS. Theobromine (T0625) is a methylxanthine alkaloid and derivative of caffeine that has been found in cocoa beans and has diverse biological activities. It is an adenosine A1 receptor antagonist. Theobromine (T0625) increases AMPK phosphorylation and inhibits adipocyte differentiation, ERK and JNK phosphorylation, and IL-6 and TNF- α production in 3T3-L1 preadipocytes cultured in differentiation medium. It inhibits decreases in renal cortex SIRT1 activity and increases in NADPH oxidase-dependent reactive oxygen species (ROS) production, as well as reduces kidney hypertrophy and albuminuria in a spontaneously hypertensive rat model of streptozotocin-induced diabetes when administered at a dose of 5 mg/kg per day. ³ Theobromine (T0625) is toxic to dogs with an LD50 value of 250 to 500 mg/kg.
Targets(IC50)	Endogenous Metabolite, Adenosine Receptor

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.3706 mL	26.8528 mL	53.7057 mL
5 mM	1.0741 mL	5.3706 mL	10.7411 mL
10 mM	0.5371 mL	2.6853 mL	5.3706 mL
50 mM	0.1074 mL	0.5371 mL	1.0741 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481