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## DATASHEET

Caffeine

### Product overview

<b>Name</b>	Caffeine
<b>Cat No</b>	HB2846
<b>Biological action</b>	Antagonist
<b>Description</b>	Non-selective, competitive adenosine receptor antagonist / PDE inhibitor

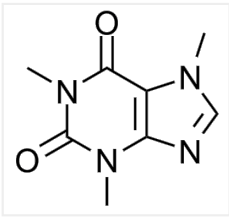
### Biological Data

<b>Biological description</b>	Non-selective and competitive adenosine receptor antagonist ( $K_i$ values are 27-30 and 50 $\mu\text{M}$ at $A_2$ and $A_1$ receptors respectively). Improves attention and memory. Also inhibits phosphodiesterase. Shows potential protective actions against dementia and age-related memory decline and anti-cancer actions.
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### Solubility & Handling

<b>Solubility overview</b>	Soluble in water (100 mM), and in DMSO (50 mM)
<b>Storage instructions</b>	-20 °C
<b>Storage of solutions</b>	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
<b>Shipping Conditions Important</b>	Stable for <b>ambient temperature</b> shipping. Follow storage instructions on receipt. This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	1,3,7-Trimethylxanthine
<b>Molecular Weight</b>	194.19
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>8</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub>
<b>CAS Number</b>	58-08-2
<b>PubChem identifier</b>	2519
<b>SMILES</b>	O=C1C2=C(N=CN2C)N(C)C(N1C)=O
<b>InChiKey</b>	RYYVLZVUVIJVGH-UHFFFAOYSA-N