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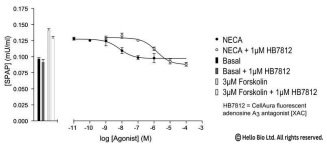
DATASHEET

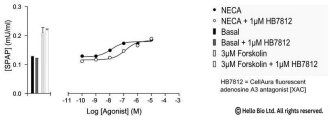
CA200645 CellAura fluorescent adenosine A_3 antagonist [XAC]

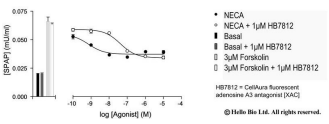
Product overview

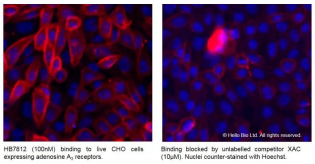
Name	CA200645 CellAura fluorescent adenosine A_3 antagonist [XAC]
Cat No	HB7812
Biological description	Fluorescent A_3 adenosine receptor antagonist. Displays selectivity for A_3 over A_{2A} and A_1 (apparent K_D values are 8.10, 6.74 and 6.57 respectively). Antagonizes the activity of NECA, an adenosine receptor agonist. Exhibits no intrinsic agonist activity. A fluorescent Xanthine Amine Congener (XAC) analog.
Alternative names	Fluorescent Adenosine A3 receptor Antagonist (A3-633-AN), A_3-633-AN
Biological action	Antagonist
Purity	>95%
Description	Fluorescent A_3 adenosine receptor antagonist

Images









Biological Data

Application notes	For ligand binding; fluorescence imaging; high content analysis; kinetic analysis; cell sorting at adenosine A_1 / A_{2A} / A_3 receptors use solutions up to 100 nM.
Pharmacological validation	The CellAura fluorescent adenosine A_3 antagonist [XAC] ligand was shown to antagonize the activity of the adenosine receptor agonist, NECA, in three separate recombinant CHO cell lines expressing the human A_1, A_{2A} or A_3 receptor and a cyclic AMP-responsive secreted placental alkaline phosphatase (SPAP) reporter gene. The cyclic AMP-induced expression of SPAP was measured under basal and forskolin-stimulated (maximal) conditions. Addition of CellAura fluorescent adenosine A_3 antagonist [XAC] to the basal or forskolin-stimulated cells did not significantly alter basal and stimulated SPAP levels, demonstrating that CellAura fluorescent adenosine A_3 antagonist [XAC] has no intrinsic agonist activity. To determine the apparent KD for CellAura fluorescent adenosine A_3 antagonist [XAC], cells were treated with varying concentrations of NECA alone, or in the presence of 1µM CellAura fluorescent adenosine A_3 antagonist [XAC], and the cyclic AMP-induced expression of SPAP measured. The apparent KD at A_1, A_{2A} and A_3 receptors was calculated from the rightward shift of the agonist response curve in the presence of CellAura fluorescent adenosine A_3 antagonist [XAC], compared to the response curve for the agonist alone, for each receptor-expressing cell line

Solubility & Handling

Storage instructions	-20°C (protect from light)
Solubility overview	Soluble in DMSO
Handling	After thawing individual aliquots for use, we recommend briefly sonicating the sample to ensure it is fully dissolved and the solution is homogeneous. We do not recommend using the product after subjecting it to repetitive freeze-thaw cycles.
Shipping conditions	The product, supplied in a dry form, is stable at ambient temperature for periods of up to a few days and does not require shipping on ice/dry ice.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Molecular Weight	1144
Source	Synthetic
Appearance	Purple solid
Formulation	Lyophilized film
Excitation	633 nm
Emission	650 nm