

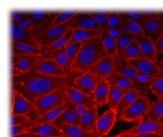
## DATASHEET

### CA200634 CellAura fluorescent adenosine antagonist [XAC]

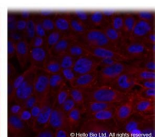
#### Product overview

<b>Name</b>	CA200634 CellAura fluorescent adenosine antagonist [XAC]
<b>Cat No</b>	HB7814
<b>Description</b>	Competitive fluorescent adenosine receptor antagonist
<b>Biological description</b>	Competitive fluorescent adenosine receptor antagonist (apparent $K_D$ values are 7.50, 7.37 and 7.30 for $A_{2A}$ , $A_3$ and $A_1$ respectively). Antagonizes the activity of NECA, an adenosine receptor agonist. Inhibits cAMP accumulation and stimulates inositol phosphate accumulation ( $pK_b$ values are 6.4 and 6.5 respectively). Exhibits no intrinsic agonist activity.
<b>Alternative names</b>	Fluorescent Adenosine receptor Antagonist (A-633-AN), A-633-AN, XAC-X-BY630
<b>Biological action</b>	Antagonist
<b>Purity</b>	>97%

#### Images

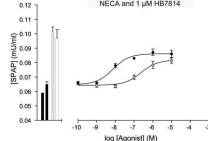


HB7814 (30nM) binding to live CHO cells expressing adenosine  $A_1$  receptors.



Binding blocked by unlabeled competitor. XAC (10µM) nuclear counter-stained with Hoechst.

Fig 1.  $A_1$ -SPAP cells assayed against NECA and 1 µM HB7814

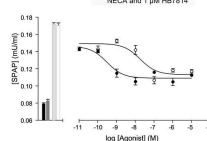


• NECA  
○ NECA + 1µM HB7814  
■ Basal  
■ Basal + 1µM HB7814  
□ 3µM Forskolin  
□ 3µM Forskolin + 1µM HB7814

HB7814 = CellAura fluorescent adenosine antagonist [XAC]

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Fig 2.  $A_3$ -SPAP cells assayed against NECA and 1 µM HB7814



• NECA  
○ NECA + 1µM HB7814  
■ Basal  
■ Basal + 1µM HB7814  
□ 3µM Forskolin  
□ 3µM Forskolin + 1µM HB7814

HB7814 = CellAura fluorescent adenosine antagonist [XAC]

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#### 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 antagonist [XAC] ligand was shown to antagonize the activity of the adenosine receptor agonist adenosine-5'-N-ethyluronamide (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 antagonist [XAC] to the basal or forskolin-stimulated cells did not significantly alter basal and stimulated SPAP levels, demonstrating that CellAura fluorescent adenosine antagonist [XAC] has no intrinsic agonist activity. To determine the apparent KD for CellAura fluorescent adenosine antagonist [XAC], cells were treated with varying concentrations of NECA alone, or in the presence of 1 µM CellAura fluorescent adenosine 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 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)

<b>Solubility overview</b>	Soluble in DMSO
<b>Handling</b>	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.
<b>Shipping conditions</b>	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.
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

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## Chemical Data

<b>Molecular Weight</b>	974
<b>Source</b>	Synthetic
<b>Appearance</b>	Purple solid
<b>Formulation</b>	Lyophilized film
<b>Excitation</b>	636 nm
<b>Emission</b>	651 nm

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