Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

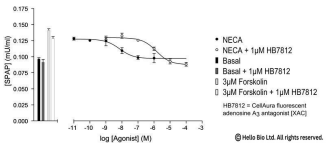
# DATASHEET

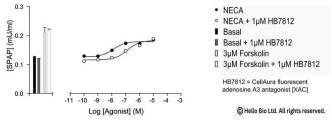
CA200645 CellAura fluorescent adenosine $A_3$ antagonist [XAC]

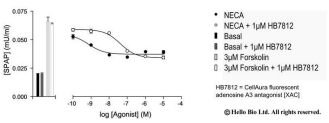
## Product overview

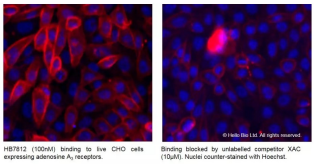
| | |
|---|---|
| **Name** | CA200645 CellAura fluorescent adenosine $A_3$ antagonist [XAC] |
| **Cat No** | HB7812 |
| **Biological description** | Fluorescent $A_3$ adenosine receptor antagonist. Displays selectivity for $A_3$ over $A_{2A}$ and $A_1$ (apparent $K_D$ values are 8.10, 6.74 and 6.57 respectively). 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 |