

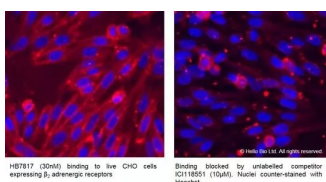
## DATASHEET

### CA200689 CellAura fluorescent $\beta_2$ antagonist [(S)-propranolol-red]

#### Product overview

<b>Name</b>	CA200689 CellAura fluorescent $\beta_2$ antagonist [(S)-propranolol-red]
<b>Cat No</b>	HB7817
<b>Biological description</b>	Competitive fluorescent $\beta_2$ -adrenoceptor antagonist. Displays selectivity for $\beta_2$ over $\beta_1$ and $\beta_3$ (apparent $K_D$ values are 9.21, 7.76 and 7.09 respectively). Antagonizes the activity of isoprenaline, a non-selective $\beta$ -adrenoceptor agonist. Exhibits no intrinsic agonist activity.
<b>Alternative names</b>	CA200689; $\beta_2$ -633-AN2
<b>Biological action</b>	Antagonist
<b>Purity</b>	>95%
<b>Description</b>	Competitive fluorescent $\beta_2$ -adrenoceptor antagonist

#### Images



#### Biological Data

##### Application notes Pharmacological validation

For imaging at  $\beta_1$  /  $\beta_2$  /  $\beta_3$  adrenoceptors use solutions up to 100 nM.

The CellAura fluorescent  $\beta_2$  antagonist [(S)-propranolol-red] ligand was shown to antagonize the activity of the non-selective  $\beta$  agonist, isoprenaline, in three separate recombinant CHO cell lines expressing either the human  $\beta_1$ ,  $\beta_2$  or  $\beta_3$  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  $\beta_2$  antagonist [(S)-propranolol-red] to the basal or forskolin-stimulated cells did not significantly alter basal and stimulated SPAP levels, demonstrating that CellAura fluorescent  $\beta_2$  antagonist [(S)-propranolol-red] has no intrinsic agonist activity at either  $\beta_1$ ,  $\beta_2$  or  $\beta_3$  receptors. To determine the apparent KD for CellAura fluorescent  $\beta_2$  antagonist [(S)-propranolol-red] at  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  receptors, cells were treated with varying concentrations of isoprenaline alone, or in the presence of 1  $\mu$ M CellAura fluorescent  $\beta_2$  antagonist [(S)-propranolol-red], and the cyclic AMP-induced expression of SPAP measured. The apparent KD was calculated from the rightward shift of the agonist response curve in the presence of CellAura fluorescent  $\beta_2$  antagonist [(S)-propranolol-red], compared to the response curve for the agonist alone, for  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  receptor expressing cell lines.

#### Solubility & Handling

<b>Storage instructions</b>	-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

**Shipping conditions**

subjecting it to repetitive freeze-thaw cycles.

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.

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**Chemical Data**

<b>Molecular Weight</b>	894
<b>Source</b>	Synthetic
<b>Formulation</b>	Lyophilized film
<b>Excitation</b>	633 nm
<b>Emission</b>	650 nm

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