

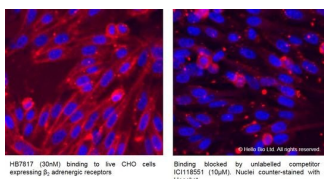
DATASHEET

CA200689 CellAura fluorescent β_2 antagonist [(S)-propranolol-red]

Product overview

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| Name | CA200689 CellAura fluorescent β_2 antagonist [(S)-propranolol-red] |
| Cat No | HB7817 |
| Description | Competitive fluorescent β_2 -adrenoceptor antagonist |
| Biological description | Competitive fluorescent β_2 -adrenoceptor antagonist. Displays selectivity for β_2 over β_1 and β_3 (apparent K_D values are 9.21, 7.76 and 7.09 respectively). Antagonizes the activity of isoprenaline, a non-selective β -adrenoceptor agonist. Exhibits no intrinsic agonist activity. |
| Alternative names | CA200689; β_2 -633-AN2 |
| Biological action | Antagonist |

Images



Biological Data

Application notes Pharmacological validation

For imaging at β_1 / β_2 / β_3 adrenoceptors use solutions up to 100 nM.

The CellAura fluorescent β_2 antagonist [(S)-propranolol-red] ligand was shown to antagonize the activity of the non-selective β agonist, isoprenaline, in three separate recombinant CHO cell lines expressing either the human β_1 , β_2 or β_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 β_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 β_2 antagonist [(S)-propranolol-red] has no intrinsic agonist activity at either β_1 , β_2 or β_3 receptors. To determine the apparent KD for CellAura fluorescent β_2 antagonist [(S)-propranolol-red] at β_1 , β_2 and β_3 receptors, cells were treated with varying concentrations of isoprenaline alone, or in the presence of 1 μ M CellAura fluorescent β_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 β_2 antagonist [(S)-propranolol-red], compared to the response curve for the agonist alone, for β_1 , β_2 and β_3 receptor expressing cell lines.

Solubility & Handling

Storage instructions Solubility overview Handling

-20 °C (protect from light)
Soluble in DMSO
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

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|-------------------------|------------------|
| Molecular Weight | 894 |
| Source | Synthetic |
| Formulation | Lyophilized film |
| Excitation | 633 nm |
| Emission | 650 nm |
