

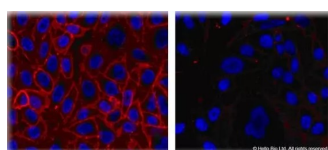
DATASHEET

CA200887 CellAura fluorescent M₃ antagonist [pirenzepine]

Product overview

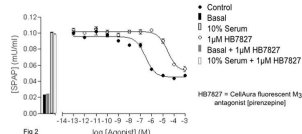
Name	CA200887 CellAura fluorescent M ₃ antagonist [pirenzepine]
Cat No	HB7827
Biological description	Fluorescent M ₃ muscarinic receptor antagonist (apparent K _D values are 7.97, 6.29 and 6.24 for M ₃ , M ₅ and M ₁ receptors respectively). Antagonizes the activity of carbachol, a muscarinic receptor agonist. Displays no intrinsic activity.
Alternative names	CA200887 M ₃ -633-AN
Biological action	Antagonist
Purity	>97%
Description	Fluorescent M ₃ muscarinic receptor antagonist

Images



HB7827 (200nM) binding to live CHO cells expressing muscarinic M₃ receptors.

Binding blocked by the unlabeled competitor 4-DAMP (10µM). Nuclei counter-stained with DAPI.



Biological Data

Application notes Pharmacological validation

For imaging at the M₃ receptor use solutions up to 100 nM.

The CellAura fluorescent M₃ antagonist [pirenzepine] ligand was shown to antagonize the activity of the muscarinic agonist, carbachol, in a recombinant CHO cell line expressing the human M₃ receptor and a serum-responsive secreted placental alkaline phosphatase (SPAP) reporter gene. The serum-induced expression of SPAP was measured under basal and serum-stimulated (maximal) conditions. Addition of CellAura fluorescent M₃ antagonist [pirenzepine] to the basal or serum-stimulated cells did not significantly alter basal and stimulated SPAP levels, demonstrating that CellAura fluorescent M₃ antagonist [pirenzepine] has no intrinsic agonist activity. To determine the apparent K_D for CellAura fluorescent M₃ antagonist [pirenzepine], cells were treated with varying concentrations of carbachol alone, or in the presence of 1µM CellAura fluorescent M₃ antagonist [pirenzepine], and the serum-induced expression of SPAP measured. The apparent K_D was calculated from the rightward shift of the agonist response curve in the presence of CellAura fluorescent M₃ antagonist [pirenzepine], compared to the response curve for the agonist alone.

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

Storage instructions

-20 °C (protect from light)
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	1014
Source	Synthetic
Formulation	Lyophilized film
Excitation	633 nm
Emission	650 nm
