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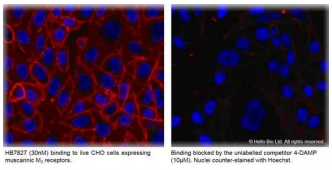
DATASHEET

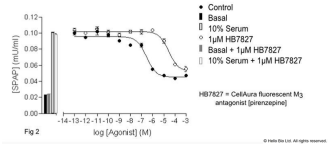
CA200887 CellAura fluorescent M_3 antagonist [pirenzepine]

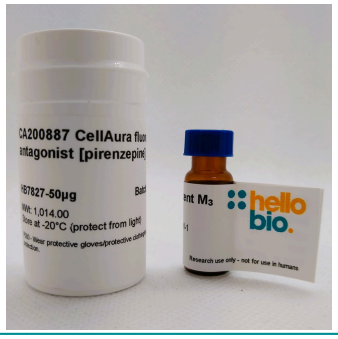
Product overview

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







Biological Data

Application notes	For imaging at the M_3 receptor use solutions up to 100 nM.
Pharmacological validation	The CellAura fluorescent M_3 antagonist [pirenzepine] ligand was shown to antagonize the activity of the muscarinic agonist, carbachol, in a recombinant CHO cell line expressing the human M_3 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 M_3 antagonist [pirenzepine] to the basal or serum-stimulated cells did not significantly alter basal and stimulated SPAP levels, demonstrating that CellAura fluorescent M_3 antagonist [pirenzepine] has no intrinsic agonist activity. To determine the apparent KD for CellAura fluorescent M_3 antagonist [pirenzepine], cells were treated with varying concentrations of carbachol alone, or in the presence of 1µM CellAura fluorescent M_3 antagonist [pirenzepine], and the serum-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 M_3 antagonist [pirenzepine], compared to the response curve for the agonist alone.

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	1014
Source	Synthetic
Formulation	Lyophilized film
Excitation	633 nm
Emission	650 nm