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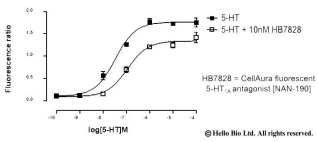
DATASHEET

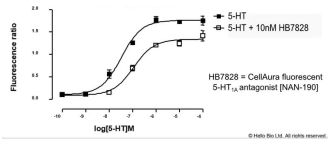
CA200992 CellAura fluorescent 5-HT_{1A} antagonist [NAN-190]

Product overview

Name	CA200992 CellAura fluorescent 5-HT_{1A} antagonist [NAN-190]
Cat No	HB7828
Biological description	Fluorescent 5-HT_{1A} serotonin receptor antagonist (apparent K_D values are 8.75, 6.34 and 5.57 for 5-HT_{1A}, 5-HT_{2A} and 5-HT_{1B} receptors respectively). Antagonizes the activity of serotonin, a 5-HT_{1A} agonist.
Alternative names	CA200992|5HT1A-633-AN2
Biological action	Antagonist
Purity	>97%
Description	Fluorescent 5-HT_{1A} receptor antagonist

Images





Biological Data

Application notes	For imaging at the 5-HT_{1A} receptor use solutions up to 200 nM.
Pharmacological validation	The CellAura fluorescent 5-HT_{1A} antagonist [NAN-190] ligand was shown to antagonize the activity of the 5-HT1A agonist, 5-HT, in the CHO cell line expressing the human 5-HT_{1A} receptor, using the Ca^{2+} sensitive fluorescent indicator, Fura-2 AM. Cells were plated in clear bottom black 96-well tissue culture plates and grown to confluence for 24 hours. Medium was then removed and cells incubated in loading buffer comprising HEPES buffered saline with 0.5mM Brilliant Black BN, 2.5mM probenecid, 0.023% pluronic acid F-127 and 2.5µg/ml Fura-2 AM at 37ºC for 30 – 45 mins, either in the presence of CellAura fluorescent 5-HT_{1A} antagonist [NAN-190] or a DMSO vehicle control. During this time serial dilutions of the 5-HT1A agonist, 5-HT, were prepared in HEPES buffered saline containing 2.5mM probenecid and 0.5mM Brilliant Black BN. To determine the antagonist activity of CellAura fluorescent 5-HT_{1A} antagonist [NAN-190], serial dilutions of the agonist was added to wells with or without CellAura fluorescent 5-HT_{1A} antagonist [NAN-190]. The agonist Ca^{2+} response in the absence or presence of CellAura fluorescent 5-HT_{1A} antagonist [NAN-190] was determined on a Molecular Devices FlexStation by exciting at 340 nm and 380 nm and ratioing the fluorescence intensity of Fura-2 signal collected at 320 nm. The apparent KD was calculated from the rightward shift of the agonist response curve in the presence of CellAura fluorescent 5-HT_{1A} antagonist [NAN-190], compared to the response curve for the agonist alone.

Solubility & Handling

Storage instructions	-20°C (protect from light)
Solubility overview	Soluble in DMSO

Storage of solutions	Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
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	Stable for ambient temperature shipping. Follow storage instructions on receipt.
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	1025
Source	Synthetic
Formulation	Lyophilized film
Excitation	633 nm
Emission	650 nm