DATA SHEET

Product overview

Name	CELT-501 - Oxytocin receptor fluorogenic agonist (597/657) (LIT-01-671)
Short description	High affinity red fluorescent turn-on agonist for oxytocin receptor
Biological description	CELT-501 is the first fluorescent turn-on ligand for oxytocin receptor (OTR).[1] It displays a high affinity for OTR (K_i = 0.54 nM determined by competition experiments against [^{3}H]AVP (labelled arginine vasopressin) and an agonist character (EC_{50}=244 nm) inducing intracellular calcium release in a dose-dependent manner.
Biological action	Modulation of OTR by orthosteric agonism.
Quantity	10 µg
Purity	> 90%

Properties

Molecular Weight	1826.88
Source	Synthetic
Appearance	Dark green powder
Formulation	Lyophilized solid
Excitation	597 nm (water), 555 nm (MeOH)
Emission	657 nm (water), 631 nm (MeOH)
Pharmacological validation	The affinity of CELT-501 for OTR has been determined by radioligand binding assay and the efficacy by the measurement of the intracellular calcium release.[1]

Validated applications

Live-imaging confocal microscopy	CELT-501 displays the unique properties to turn-on its fluorescent only after binding to OTR. The fluorogenic properties of CELT-501 enables the detection and the quantification of OTR in living cells with a higher signal to noise ratio than classical fluorescent probes. In addition, the

environmentally sensitive character of CELT-501 enables to probe the local lipid microenvironment of OTR.[2]

Storing and Using product

Storage instructions	-20 °C (protect from light)
Solubility overview	Soluble in DMSO
Stock solution	Add 55 µL of DMSO to obtain a 100µM solution
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, as a solid, 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.

References

[1] Karpenko, I. A.; Kreder, R.; Valencia, C.; Villa, P.; Mendre, C.; Mouillac, B.; Mely, Y.; Hibert, M.; Bonnet, D.; Klymchenko, A. S. Red Fluorescent Turn-On Ligands for Imaging and Quantifying G Protein-Coupled Receptors in Living Cells. *Chembiochem* **2014**, 15, 359–363. DOI: 10.1002/cbic.201300738