



DATA SHEET

Product overview

Name	CELT-483 (cat n. σ R-646-1)
Short description	Potent $h\sigma_1/\sigma_2$ receptor fluorescent ligand.
Biological description	It shows high affinity for σ_1 and σ_2 receptors ($K_i = 51.3$ nM and $K_i = 30.2$ nM, respectively in radioligand binding assays).
Biological action	Modulation of σ_1/σ_2 receptor by orthosteric binding.
Quantity	10 μ g
Purity	> 95%

Properties

Molecular Weight	970.36
Source	Synthetic
Appearance	Dark blue solid
Formulation	Solid
Excitation	646 nM
Emission	662 nM
Pharmacological validation	The efficacy and potency of CELT-483 as a σ_1/σ_2 ligand was confirmed by a radioligand binding assay.

Validated applications

Flow Cytometry	CELT-483 has been validated in flow cytometry in MCF7 cells ¹
Confocal microscopy	CELT-483 has been validated in confocal microscopy in MCF7 cells ¹
Live Cell microscopy	CELT-483 has been validated in live cell microscopy in MCF7 cells ¹

Storing and Using product

Storage instructions	-20 °C (protect from light).
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Solubility overview	Soluble in DMSO.
Stock solution	Add 103 μL of DMSO to obtain a 100 μM stock solution. We recommend not exceeding 1% of DMSO in the final assay 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 room 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.

Publications

¹*J. Med. Chem.* 2023, 66, 6, 3798–3817 <https://doi.org/10.1021/acs.jmedchem.2c01227>