**Proteins** 

## **Product** Data Sheet

## L-803087 TFA

Cat. No.: HY-108497A CAS No.: 1786412-46-1 Molecular Formula:  $C_{27}H_{30}F_5N_5O_5$ 

Molecular Weight: 599.55

Target: Somatostatin Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	L-803087 TFA is a potent and selective somatostatin sst4 receptor agonist with a $K_i$ of 0.7 nM. L-803087 TFA is >280-fold more selective for sst4 receptor than other somatostatin receptors. L-803087 TFA facilitates AMPA-mediated hippocampal synaptic responses in vitro and increases kainate-induced seizures in mice <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	Ki: 0.7 nM (sst4 receptor), 199 nM (sst1 receptor), 4720 nM (sst2 receptor), 1280 nM (sst3 receptor) and 3880 nM (sst5 receptor) <sup>[1]</sup>
In Vitro	L-803087 has K <sub>i</sub> values for cloned human sst1, sst2, sst3 and sst5 receptors of 199, 4720, 1280 and 3880 nM, respectively <sup>[1]</sup> . L-803087 has a diamine moiety that maps to lysine on the phmacophore, but relation of this molecule to the aromatic and the Trp substituents of the phmacophore are not obvious. L-803087 does not inhibit secretion of growth hormone, insulin, or glucagon <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	L-803087 (5 nmol) is doubled seizure activity in wild-type mice on average. Interestingly, this effect is blocked by 3 nmol Octreotide. In hippocampal slices from wild-type mice, Octreotide (2 $\mu$ M) does not modify AMPA-mediated synaptic responses while facilitation occurred with L-803087 (2 $\mu$ M)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

[1]. Rohrer SP, et al. Rapid identification of subtype-selective agonists of the somatostatin receptor through combinatorial chemistry. Science. 1998 Oct 23;282(5389):737-40.

[2]. Moneta D, et al. Somatostatin receptor subtypes 2 and 4 affect seizure susceptibility and hippocampal excitatory neurotransmission in mice. Eur J Neurosci. 2002 Sep;16(5):843-9.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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