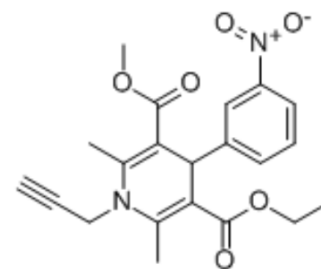


MRS1845

Cat. No.:	HY-103310
CAS No.:	544478-19-5
Molecular Formula:	C ₂₁ H ₂₂ N ₂ O ₆
Molecular Weight:	398.41
Target:	Calcium Channel; CRAC Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 83.33 mg/mL (209.16 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		2.5100 mL	12.5499 mL	25.0998 mL
	5 mM		0.5020 mL	2.5100 mL	5.0200 mL
	10 mM		0.2510 mL	1.2550 mL	2.5100 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.08 mg/mL (5.22 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (5.22 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MRS1845 is a selective store-operated calcium (SOC) channel inhibitor with an IC₅₀ of 1.7 μM^[1]. MRS1845 is an ORAI1 inhibitor^{[2][3]}.

IC₅₀ & Target

Ca²⁺ channel^[1]

In Vitro

Treatment with MRS1845 (10 μM) virtually disrupts the effects of β-glycerophosphate on store-operated Ca²⁺ entry (SOCE)^[2].
 MRS1845 (10 μM) significantly decreases SOCE and virtually abolishes the increase of SOCE following placental growth factor (PIGF) treatment^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Harper JL, et al. Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells. *Biochem Pharmacol.* 2003 Feb 1;65(3):329-38.
- [2]. Ma K, et al. Phosphate-induced ORAI1 expression and store-operated Ca^{2+} entry in aortic smooth muscle cells. *J Mol Med (Berl).* 2019 Oct;97(10):1465-1475.
- [3]. Abdelazeem KNM, et al. Upregulation of Orai1 and STIM1 expression as well as store-operated Ca^{2+} entry in ovary carcinoma cells by placental growth factor. *Biochem Biophys Res Commun.* 2019 May 7;512(3):467-472.
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Caution: Product has not been fully validated for medical applications. For research use only.

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