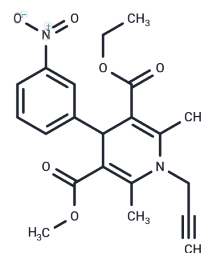


MRS1845

## Chemical Properties

CAS No. : 544478-19-5  
 Formula: C<sub>21</sub>H<sub>22</sub>N<sub>2</sub>O<sub>6</sub>  
 Molecular Weight: 398.41  
 Storage: Store at low temperature  
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
*Actual storage temperature shall be subject to the COA.*



## Biological Description

Description	MRS1845 is an ORA11 inhibitor and calcium entry (SOCE) blocker that blocks VP-induced SOCE, OS, and Ca(2+) deposition.
Targets(IC50)	Calcium Channel
In vitro	Additional treatment with the ORA11 inhibitor MRS1845 (10 μM) actually disrupted the effect of β-glycerophosphate on SOCE. Furthermore, in the presence of the ORA11 inhibitor and when ORA11 was silenced, the expression and activity of β-glycerophosphate-induced MSX2, CBFA1, SOX9, and ALPL mRNA in HAoSMCs were inhibited[2].

## Solubility Information

Solubility	H <sub>2</sub> O: < 0.1 mg/mL (insoluble) DMSO: 60 mg/mL (150.6 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (12.55 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.510 mL	12.5499 mL	25.0998 mL
5 mM	0.502 mL	2.510 mL	5.020 mL
10 mM	0.251 mL	1.255 mL	2.510 mL
50 mM	0.0502 mL	0.251 mL	0.502 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- 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.
- Ma K, et al. Phosphate-induced ORAI1 expression and store-operated Ca<sup>2+</sup> entry in aortic smooth muscle cells. *J Mol Med (Berl).* 2019 Oct;97(10):1465-1475.
- Abdelazeem KNM, et al. Upregulation of Orai1 and STIM1 expression as well as store-operated Ca<sup>2+</sup> entry in ovary carcinoma cells by placental growth factor. *Biochem Biophys Res Commun.* 2019 May 7;512(3):467-472.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481