

## 2,4,5-Trimethoxybenzoic acid

## Chemical Properties

CAS No. : 490-64-2

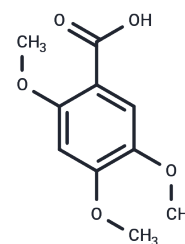
Formula: C<sub>10</sub>H<sub>12</sub>O<sub>5</sub>

Molecular Weight: 212.2

Storage: Keep away from direct sunlight, Keep away from moisture, Store at low temperature, Store under nitrogen

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	2,4,5-Trimethoxybenzoic acid (Asaronic acid) is a natural product that inhibits M1 macrophage phenotype-induced inflammatory responses and suppresses TLR4/IL-6-mediated activation of NF-κB and JAK-STAT signaling pathways.
Targets(IC50)	NF-κB, STAT, IL Receptor, JAK, TLR
In vitro	2,4,5-Trimethoxybenzoic acid (0-20 μg/mL, 24-72 hours) can inhibit LPS-induced IL-6 and MCP-1 secretion in J774A.1 macrophages, and reduce the expression levels of TLR4, CD36, and CD68 [1]. 2,4,5-Trimethoxybenzoic acid (0-20 μg/mL, 48 hours) not only suppresses high glucose-induced expression of HIF-1α, VEGF, TLR4, iNOS, and IL-6 in J774A.1 macrophages but also promotes the expression of anti-inflammatory factors Arg-1 and IL-10 [1].

## Solubility Information

Solubility	DMSO: 80 mg/mL (377 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	4.7125 mL	23.5627 mL	47.1254 mL
5 mM	0.9425 mL	4.7125 mL	9.4251 mL
10 mM	0.4713 mL	2.3563 mL	4.7125 mL
50 mM	0.0943 mL	0.4713 mL	0.9425 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

Oh H, et al. Asaronic Acid Attenuates Macrophage Activation toward M1 Phenotype through Inhibition of NF- $\kappa$ B Pathway and JAK-STAT Signaling in Glucose-Loaded Murine Macrophages. J Agric Food Chem. 2019;67(36):10069-10078.

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