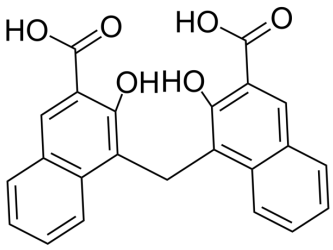
Pamoic acid

Cat. No.:	HY-W008613
CAS No.:	130-85-8
Molecular Formula:	$C_{23}H_{16}O_6$
Molecular Weight:	388.38
Target:	ERK; GPR35
Pathway:	MAPK/ERK Pathway; Stem Cell/Wnt; GPCR/G Protein
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (128.74 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5748 mL	12.8740 mL	25.7480 mL
	5 mM	0.5150 mL	2.5748 mL	5.1496 mL
	10 mM	0.2575 mL	1.2874 mL	2.5748 mL

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

BIOLOGICAL ACTIVITY

Description

Pamoic acid (Embonic acid) is a potent GPR35 agonist with an EC_{50} of 79 nM. Pamoic acid exhibits neuroprotective and anti-inflammatory properties[1][2].

IC_{50} & Target

EC50: 79 nM (GPR35)[1]

In Vitro

GPR35 activation by Pamoic acid may increase the phosphorylation of ERK1/2, which in turn initiates an anti-inflammatory signal by suppressing NF-κB-dependent inflammatory genes[1].

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

In Vivo

In a mouse model of stroke, Pamoic acid (s.c.; 50-100 mg/kg) has neuroprotective activity that activates GPR35. Pharmacological inhibition of GPR35 reveals that Pamoic acid reduces infarcts size in a GPR35 dependent manner. Pamoic acid treatment results in a preferential increment of noninflammatory Ly-6CLo monocytes/macrophages in the ischemic brain along with the reduced neutrophil counts[1].

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REFERENCES

[1]. Ozayra Sharmin, et al. Activation of GPR35 protects against cerebral ischemia by recruiting monocyte-derived macrophages. Sci Rep. 2020 Jun 10;10(1):9400.

[2]. Pingwei Zhao, et al. Targeting of the orphan receptor GPR35 by pamoic acid: a potent activator of extracellular signal-regulated kinase and β-arrestin2 with antinociceptive activity. Mol Pharmacol. 2010 Oct;78(4):560-8.

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