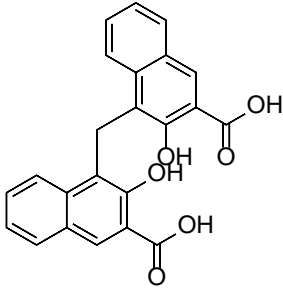


# Product data sheet



MedKoo Cat#: 561642 Name: Pamoic acid CAS: 130-85-8 Chemical Formula: C <sub>23</sub> H <sub>16</sub> O <sub>6</sub> Exact Mass: 388.0947 Molecular Weight: 388.375	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

## 1. Product description:

Pamoic acid is an agonist of the orphan G protein-coupled receptor GPR35. It activates ERK and beta-arrestin2 and causes antinociceptive activity.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	25.1	87.04

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.57 mL	12.87 mL	25.75 mL
5 mM	0.52 mL	2.57 mL	5.15 mL
10 mM	0.26 mL	1.29 mL	2.57 mL
50 mM	0.05 mL	0.26 mL	0.52 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

### In vitro study

1. Zhao P, Sharir H, Kapur A, Cowan A, Geller EB, Adler MW, Seltzman HH, Reggio PH, Heynen-Genel S, Sauer M, Chung TD, Bai Y, Chen W, Caron MG, Barak LS, Aboud ME. Targeting of the orphan receptor GPR35 by pamoic acid: a potent activator of extracellular signal-regulated kinase and  $\beta$ -arrestin2 with antinociceptive activity. *Mol Pharmacol.* 2010 Oct;78(4):560-8. doi: 10.1124/mol.110.066746. Epub 2010 Jul 22. PMID: 20826425; PMCID: PMC2981393.

### In vivo study

1. De Leo F, Rossi A, De Marchis F, Cigana C, Melessike M, Quilici G, De Fino I, Mantonico MV, Fabris C, Bragonzi A, Bianchi ME, Musco G. Pamoic acid is an inhibitor of HMGB1·CXCL12 elicited chemotaxis and reduces inflammation in murine models of *Pseudomonas aeruginosa* pneumonia. *Mol Med.* 2022 Sep 7;28(1):108. doi: 10.1186/s10020-022-00535-z. PMID: 36071400; PMCID: PMC9449960.

2. Sharmin O, Abir AH, Poto A, Alam M, Banik J, Rahman AFMT, Tarannum N, Wadud R, Habib ZF, Rahman M. Activation of GPR35 protects against cerebral ischemia by recruiting monocyte-derived macrophages. *Sci Rep.* 2020 Jun 10;10(1):9400. doi: 10.1038/s41598-020-66417-8. PMID: 32523084; PMCID: PMC7287103.

## 7. Bioactivity

### Biological target:

Pamoic acid is a potent GPR35 agonist with an EC<sub>50</sub> of 79 nM.

# Product data sheet



## In vitro activity

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To confirm that pamoic acid also activates GPR35 from other species, HEK293 cells were transiently cotransfected with plasmids for untagged mouse GPR35 and  $\beta$ arr2-GFP. Application of either pamoic acid (1  $\mu$ M) or zaprinast (5  $\mu$ M) induced trafficking of  $\beta$ arr2-GFP (Supplemental Fig. S5) was prevented by coincubation with CID2745687.

Reference: Mol Pharmacol. 2010 Oct;78(4):560-8. <https://pubmed.ncbi.nlm.nih.gov/20826425/>

## In vivo activity

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This study shows in a mouse model of stroke that GPR35 activation by pamoic acid is neuroprotective. Pharmacological inhibition of GPR35 reveals that pamoic acid reduces infarcts size in a GPR35 dependent manner. The flowcytometric analysis shows the expression of GPR35 on the infiltrating monocytes/macrophages and neutrophils in the ischemic brain. Pamoic acid treatment results in a preferential increment of noninflammatory Ly-6C<sup>Lo</sup> monocytes/macrophages in the ischemic brain along with the reduced neutrophil counts.

Reference: Sci Rep. 2020 Jun 10;10(1):9400. <https://pubmed.ncbi.nlm.nih.gov/32523084/>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*