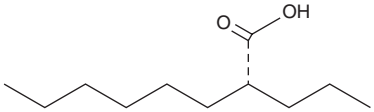
PRODUCT INFORMATION

Arundic Acid

Item No. 29087

CAS Registry No.:	185517-21-9
Formal Name:	2R-propyl-octanoic acid
Synonym:	ONO-2506
MF:	$C_{11}H_{22}O_2$
FW:	186.3
Purity:	≥95%
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Arundic acid is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of arundic acid in these solvents is approximately 10 mg/ml.

Arundic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of arundic acid should be diluted with the aqueous buffer of choice. Arundic acid has a solubility of 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Arundic acid is an inhibitor of astrocyte activation.[1] It reduces increases in brain glial fibrillary acid protein (GFAP) and S100β levels, markers of astrocyte activation, in a rat model of permanent focal ischemia induced by middle cerebral artery occlusion when administered at a dose of 10 mg/kg. Arundic acid (3 and 10 mg/kg) decreases the number of TUNEL-positive neurons, reduces infarct size, and improves motor performance in the rotarod test in the same model. It also reduces descent time and time to turn in a pole test, indicating reversal of motor deficits, in a mouse model of MPTP-induced Parkinson's disease when administered at a dose of 30 mg/kg.[2]

References

1. Tateishi, N., Mori, T., Kagamiishi, Y., *et al.* Astrocytic activation and delayed infarct expansion after permanent focal ischemia in rats. Part II: Suppression of astrocytic activation by a novel agent (R)-(−)-2-propyloctanoic acid (ONO-2506) leads to mitigation of delayed infarct expansion and early improvement of neurologic deficits. *J. Cereb. Blood Flow Metab.* **22(6)**, 723-734 (2002).
2. Kato, H., Kurosaki, R., Oki, C., *et al.* Arundic acid, an astrocyte-modulating agent, protects dopaminergic neurons against MPTP neurotoxicity in mice. *Brain Res.* **1030(1)**, 66-73 (2004).

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