

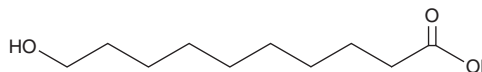
PRODUCT INFORMATION



10-hydroxy Decanoic Acid

Item No. 30458

CAS Registry No.: 1679-53-4
Synonyms: 10-hydroxy Capric Acid, FA 10:0;O,
NSC 15139
MF: $C_{10}H_{20}O_3$
FW: 188.3
Purity: $\geq 98\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years



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

Laboratory Procedures

10-hydroxy Decanoic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 10-hydroxy decanoic acid in the solvent of choice, which should be purged with an inert gas. 10-hydroxy Decanoic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 10-hydroxy decanoic acid in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

10-hydroxy Decanoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 10-hydroxy decanoic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 10-hydroxy Decanoic acid has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

10-hydroxy Decanoic acid is a hydroxy fatty acid and a major component of worker bee mandibular gland pheromones that has been found in royal jelly.^{1,2} It reduces LPS-induced nitric oxide production in RAW 264.7 cells when used at a concentration of 5 mM.²

References

1. Plettner, E., Sutherland, G.R., Slessor, K.N., *et al.* Why not be a queen? Regioselectivity in mandibular secretions of honeybee castes. *J. Chem. Ecol.* **21**(7), 1017-1029 (1995).
2. Chen, Y.-F., Wang, K., Zhang, Y.-Z., *et al.* *In vitro* anti-inflammatory effects of three fatty acids from royal jelly. *Mediators Inflamm.* 3583684 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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