

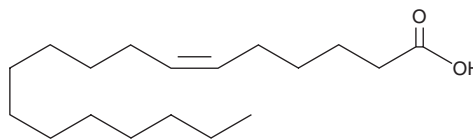
PRODUCT INFORMATION



cis-Petroselinic Acid

Item No. 20024

CAS Registry No.: 593-39-5
Formal Name: 6*Z*-octadecenoic acid
Synonyms: FA 18:1, 5-Heptadecylene-1-carboxylic Acid, *cis*-Octadecenoic Acid, Petroleinic Acid
MF: C₁₈H₃₄O₂
FW: 282.5
Purity: ≥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

cis-Petroselinic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the *cis*-petroselinic acid in the solvent of choice, which should be purged with an inert gas. *cis*-Petroselinic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of *cis*-petroselinic acid in DMSO is approximately 10 mg/ml and approximately 25 mg/ml in ethanol and DMF.

cis-Petroselinic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *cis*-petroselinic acid should first be dissolved in DMF and then diluted with the aqueous buffer of choice. *cis*-Petroselinic acid has a solubility of approximately 0.25 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

cis-Petroselinic acid is a monounsaturated fatty acid and isomer of oleic acid (Item No. 90260) that is a component of plant lipids.¹ Arachidonic acid levels decrease, while linoleic acid levels increase, in the heart, liver, and blood of rats fed a diet containing petroselinic acid.² It has been used in a composite membrane as a model of plant partitioning to study the uptake of hydrophobic organic contaminants and polycyclic aromatic hydrocarbons.¹ It has also been used as a substrate for the synthesis of new sophorolipids, which could have biological activities similar to natural biosurfactants.³

References

1. Li, X., Zhu, Y., Wu, T., *et al.* Using a novel petroselinic acid embedded cellulose acetate membrane to mimic plant partitioning and *in vivo* uptake of polycyclic aromatic hydrocarbons. *Environ. Sci. Technol.* **44**(1), 297-301 (2010).
2. Weber, N., Richter, K.D., Schulte, E., *et al.* Petroselinic acid from dietary triacylglycerols reduces the concentration of arachidonic acid in tissue lipids of rats. *J. Nutr.* **125**(6), 1563-1568 (1995).
3. Delbeke, E.I.P., Everaert, J., Uitterhaegen, E., *et al.* Petroselinic acid purification and its use for the fermentation of new sophorolipids. *AMB Express.* **6**(1), 28 (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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