

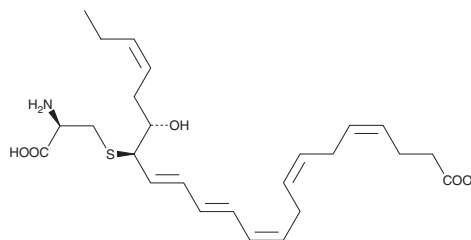
PRODUCT INFORMATION



PCTR3

Item No. 19066

CAS Registry No.: 1810710-69-0
Formal Name: 16R-[[[(2R)-2-amino-2-carboxyethyl]thio]-17S-hydroxy-4Z,7Z,10Z,12E,14E,19Z-docosahexaenoic acid
Synonym: Protein Conjugates in Tissue Regeneration 3
MF: C₂₅H₃₇NO₅S
FW: 463.6
Purity: ≥96%
UV/Vis.: λ_{max}: 282, 293 nm
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥1 year



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

Laboratory Procedures

Protein conjugates in tissue regeneration 3 (PCTR3) 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 PCTR3 in these solvents is approximately 50 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of PCTR3 is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of PCTR3 in PBS, pH 7.2, is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PCTR3 is a specialized pro-resolving mediator (SPM) synthesized from docosahexaenoic acid (DHA; Item No. 90310).^{1,2} DHA is oxidized to 16S,17S-epoxy-protectin, which is converted to PCTR1 (Item No. 19064) by glutathione S-transferase and to PCTR2 (Item No. 19065) and PCTR3 via peptidases.¹ PCTR3 is found in infected mouse spleens and resolving exudate as well as isolated human spleen and septic plasma.³ It is also found in both M1 and M2 macrophages differentiated from isolated human monocytes.⁴

References

1. Rodriguez, A.R. and Spur, B.W. Total synthesis of pro-resolving and tissue-regenerative protectin sulfido-conjugates. *Tetrahedron Lett.* **56(42)**, 5811-5815 (2015).
2. Aursnes, M., Tungen, J.E., Colas, R.A., et al. Synthesis of the 16S,17S-epoxyprotectin intermediate in the biosynthesis of protectins by human macrophages. *J. Nat. Prod.* **8(12)**, 2924-2931 (2015).
3. Serhan, C.N., Dalli, J.P., and Chiang, N. Oxylin-peptide conjugated mediators that promote resolution of infection, organ protection and tissue regeneration. **US20170258806 A1** (2014).
4. Ramon, S., Dalli, J., Sanger, J.M., et al. The protectin PCTR1 is produced by human M2 macrophages and enhances resolution of infectious inflammation. *Am. J. Pathol.* **186(4)**, 962-973 (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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