

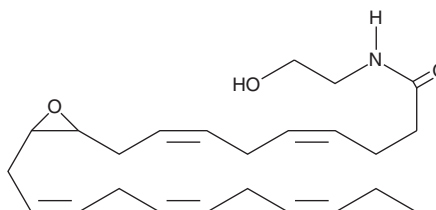
# PRODUCT INFORMATION



## (±)10(11)-EDP Ethanolamide

Item No. 25878

**CAS Registry No.:** 2123484-71-7  
**Formal Name:** N-(2-hydroxyethyl)-9-[3-(2Z,5Z,8Z)-2,5,8-undecatrien-1-yl-2-oxiranyl]-4Z,7Z-nonadienamide  
**Synonyms:** 10,11-EDP-EA, 10,11-EDP epoxide, 10,11-epoxy Docosapentaenoic Ethanolamide  
**MF:** C<sub>24</sub>H<sub>37</sub>NO<sub>3</sub>  
**FW:** 387.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 242 nm  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

(±)10(11)-EDP ethanolamide 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 (±)10(11)-EDP ethanolamide in these solvents is approximately 50 mg/ml.

(±)10(11)-EDP ethanolamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of (±)10(11)-EDP ethanolamide should be diluted with the aqueous buffer of choice. (±)10(11)-EDP ethanolamide has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method.

### Description

(±)10(11)-EDP ethanolamide is an ω-3 endocannabinoid epoxide and cannabinoid (CB) receptor agonist (EC<sub>50</sub>s = 0.43 and 22.5 nM for CB<sub>1</sub> and CB<sub>2</sub> receptors, respectively).<sup>1</sup> It is produced through direct epoxidation of docosahexaenoyl ethanolamide (DHEA; Item No. 10007534) by cytochrome P450 (CYP) epoxygenases.<sup>1,2</sup> 10,11-EDP epoxide (12.5 and 25 μM) reduces the viability of 143B metastatic osteosarcoma cells.<sup>1</sup> It induces apoptosis and inhibits cell migration in a wound-healing assay in 143B, MG63, and HOS osteosarcoma cells. (±)10(11)-EDP ethanolamide also reduces tube formation by human umbilical vein endothelial cells (HUVECs) in a Matrigel™ assay.

### References

1. Roy, J., Watson, J.E., Hong, I.S., *et al.* Antitumorigenic properties of omega-3 endocannabinoid epoxides. *J. Med. Chem.* **61**(13), 5569-5579 (2018).
2. McDougale, D.R., Watson, J.E., Abdeen, A.A., *et al.* Anti-inflammatory ω-3 endocannabinoid epoxides. *Proc. Natl. Acad. Sci. U.S.A.* **114**(30), E6034-E6043 (2017).

#### 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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