



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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- Expressversand

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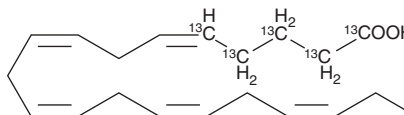
# PRODUCT INFORMATION



## Eicosapentaenoic Acid 1,2,3,4,5-<sup>13</sup>C

Item No. 30017

**Formal Name:** 5Z,8Z,11Z,14Z,17Z-  
eicosapentaenoic-1,2,3,4,5-<sup>13</sup>C<sub>5</sub> acid  
**Synonym:** EPA 1,2,3,4,5-<sup>13</sup>C  
**MF:** C<sub>15</sub>[<sup>13</sup>C]<sub>5</sub>H<sub>30</sub>O<sub>2</sub>  
**FW:** 307.4  
**Purity:** ≥98%  
**Supplied as:** A solution in methanol  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Description

Eicosapentaenoic acid 1,2,3,4,5-<sup>13</sup>C (EPA 1,2,3,4,5-<sup>13</sup>C) is intended for use as an internal standard for the quantification of EPA (Item Nos. 90110 | 90110.1 | 21908) by GC- or LC-MS. EPA is an ω-3, polyunsaturated fatty acid that has been found in fish oil.<sup>1</sup> It inhibits RANKL-induced increases in TNF-α levels in RAW 264.7 cells when used at concentrations of 50 and 100 μM.<sup>2</sup> EPA (65 pM) reduces thrombin-induced aggregation of, and increases thromboxane 3 (TXA<sub>3</sub>) levels in, platelets from isolated human platelet-rich plasma.<sup>3</sup> It reduces RANKL-induced TGF-β receptor-associated protein 1 (TRAP1) stimulation of osteoclast differentiation in RAW 264.7 cells when used at concentrations of 50 and 100 μM and decreases RANKL-induced bone resorption in RAW 264.7 cells at 50 μM.<sup>2</sup> EPA (50 μg/ml) decreases aspartate aminotransferase activity in dogs.<sup>4</sup> It prevents reductions in brain perfusion and increases in cortical and striatal infarct volumes, as well as improves lateral coordination and posture, in a rat model of ischemia and reperfusion when administered at a dose of 100 mg/kg per day.<sup>5</sup>

### References

1. Takeuchi, H., Inoue, J., Yoshida, M., *et al.* Dietary effects of n-3 eicosapentaenoic acid on essential fatty acid-deficiency symptoms of rats. *Agric. Biol. Chem.* **53(12)**, 3225-3232 (1989).
2. Rahman, M.M., Bhattacharya, A., and Fernandes, G. Docosahexaenoic acid is more potent inhibitor of osteoclast differentiation in RAW 264.7 cells than eicosapentaenoic acid. *J. Cell. Physiol.* **214(1)**, 201-209 (2008).
3. Dyerberg, J., Bang, H.O., Stoffersen, E., *et al.* Eicosapentaenoic acid and prevention of thrombosis and atherosclerosis? *Lancet* **2(8081)**, 117-119 (1978).
4. Liu, Y. and Chen, D. A preliminary study on intravenous infusion of sodium eicosapentaenoate. *Drug Dev. Ind. Pharm.* **26(2)**, 189-191 (2000).
5. Ueda, M., Inaba, T., Nito, C., *et al.* Therapeutic impact of eicosapentaenoic acid on ischemic brain damage following transient focal cerebral ischemia in rats. *Brain Res.* **1519**, 95-104 (2013).

#### 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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