



**>>Entry Name: 5,8,11,14,17-Eicosapentaenoic acid**

**Synonym(s):** 5,8,11,14,17-Icosapentaenoic acid. EPA

**CAS Registry Number:** 1553-41-9

**Related CAS Registry Numbers(s):** 2734-47-6 84494-70-2

**Extra CAS Registry Numbers(s):** 25378-27-2 32839-30-8

**Chemical Structure:** H3CCH2(CH=CHCH2)5CH2CH2COOH

**Molecular Formula:** C<sub>20</sub>H<sub>30</sub>O<sub>2</sub>

**Molecular Weight:** 302.456

**Accurate Mass:** 302.22458

**Percentage Composition:** C 79.42%; H 10.00%; O 10.58%

**Other Data:** Component of Omega-3 Marine Triglycerides [BRD35-A](#)

**>>Variant: (all-Z)-form**

**Synonym(s):** Timnodonic acid. Icosapent, INN

**CAS Registry Number:** 10417-94-4

**Type of Compound Code(s):** VA6100 XA5970 VA0600 XA2290

**Molecular Formula:** C<sub>20</sub>H<sub>30</sub>O<sub>2</sub>

**Molecular Weight:** 302.456

**Accurate Mass:** 302.22458

**Percentage Composition:** C 79.42%; H 10.00%; O 10.58%

**Biological Source:** Present in fish oils as an acylglycerol and in animal phospholipids. Metab. of α-Linolenic acid. Constit of various red algae

**Use/Importance:** Precursor of PG<sub>3</sub> series of prostaglandins. Platelet aggregation inhibitor. Allelopathic agent

**Physical Description:** Oil

**Aldrich:** 27785-1

**Fluka:** 44866

**Sigma:** E8626

**Supelco:** R30-3935

**>>Derivative:** Et ester

**Synonym(s):** Ethyl icosapentate, JAN. Ethyl EPA. MND 21

**CAS Registry Number:** 86227-47-6

**Type of Compound Code(s):** XA2290 VA0600

**Molecular Formula:** C<sub>22</sub>H<sub>34</sub>O<sub>2</sub>

**Molecular Weight:** 330.509

**Accurate Mass:** 330.25588

**Percentage Composition:** C 79.95%; H 10.37%; O 9.68%

**Biological Source:** Isol. from fish oils

**Use/Importance:** Antithrombotic agent

**Development Status:** Launched 1990

**References:**

*Aldrich Library of 13C and 1H FT NMR Spectra*, 1992, **1**, 786A, (nmr)

Teshima, S. *et al.*, *CA*, 1978, **89**, 193306, (isol, nmr)

Von Schacky, C. *et al.*, *J. Clin. Invest.*, 1985, **76**, 2446, (metab, pharmacol)

*Eur. Pat.*, 1988, 292 846; *CA*, **111**, 63962, (isol, Et ester)

Corey, E.J. *et al.*, *J.O.C.*, 1988, **53**, 5980, (synth, ir, pmr, ms)

Viala, J. *et al.*, *Tet. Lett.*, 1992, **33**, 4897, (synth)

*Martindale, The Extra Pharmacopoeia*, 30th edn., Pharmaceutical Press, 1993, 991

Vatele, J.-M. *et al.*, *Chem. Phys. Lipids*, 1995, **78**, 65, (synth)

Sandri, J. *et al.*, *J.O.C.*, 1995, **60**, 6627, (synth, ir)

Suzuki, M. *et al.*, *Phytochemistry*, 1996, **43**, 63, (isol)