



>>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: C₂₀H₃₀O₂

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: C₂₀H₃₀O₂

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 PG₃ 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: C₂₂H₃₄O₂

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*)