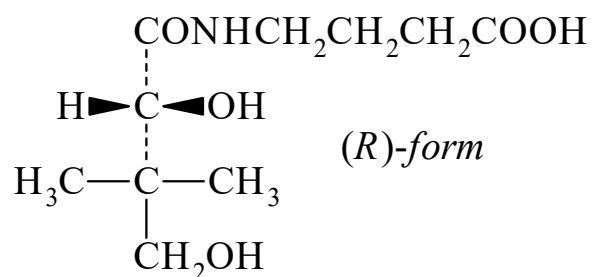




>>Entry Name: **Hopantenic acid**, INN

Synonym(s): 4-[(2,4-Dihydroxy-3,3-dimethyl-1-oxobutyl)amino]butanoic acid, 9Cl. 4-(2,4-Dihydroxy-3,3-dimethylbutyramido)butyric acid, 8Cl. Homopantothenic acid. HOPA



Related CAS Registry Numbers(s): 49831-65-4

Molecular Formula: C₁₀H₁₉NO₅

Molecular Weight: 233.264

Accurate Mass: 233.126324

Percentage Composition: C 51.49%; H 8.21%; N 6.00%; O 34.29%

Calculated Log P Data: Log P -1.99 (calc)

>>Variant: (R)-form

CAS Registry Number: 18679-90-8

Molecular Formula: C₁₀H₁₉NO₅

Molecular Weight: 233.264

Accurate Mass: 233.126324

Percentage Composition: C 51.49%; H 8.21%; N 6.00%; O 34.29%

Use/Importance: Pantothenic acid analogue

Optical Rotation: $[\alpha]_D^{20} +23.8$

>>Derivative: Ca salt

Synonym(s): Calcium homopantothenate. **Calcium hopantenate**, JAN. Hopanal. Hopate. Invirus. Leomin. Metaplas. Neuvamin. Pantogam. Vivant. Many other names

CAS Registry Number: 17097-76-6

Use/Importance: Pantothenic acid antagonist. Used for treatment of mental retardation and cerebrovascular dementia

Melting Point: Mp 155-165°

Optical Rotation: $[\alpha]_D^{20} +24.19$ (c, 2 in H₂O)

Hazard & Toxicity: Use associated with development of acute encephalopathy with hepatic steatosis. Low acute mammalian toxicity

References:

- De Sha, C.M. *et al.*, *Biochim. Biophys. Acta*, 1964, **86**, 33, (synth)
Japan. Pat., 1964, *Tanabe Seiyaku*, 6 600 732; *CA*, **64**, 12555c, (synth, Ca salt)
Kodama, T. *et al.*, *Bitamin*, 1966, **33**, 606; *CA*, **65**, 5949, (props, pharmacol, toxicity)
Shmuilovich, L.M. *et al.*, *Khim. Prir. Soedin.*, 1971, **7**, 643; *Chem. Nat. Compd. (Engl. Transl.)*, 1971, **7**, 622, (anal)
Kopelevich, V.M. *et al.*, *Khim.-Farm. Zh.*, 1971, **5**, 21, (synth, ir, nmr)
Kopelevich, V.M. *et al.*, *Farmakol. Toksikol. (Moscow)*, 1973, **36**, 489, (rev, pharmacol, metab)
Bogan, J.A., *Drugs of Today (Barcelona)*, 1979, **15**, 98, (rev)
Abe, T. *et al.*, *Drugs Exp. Clin. Res.*, 1984, **10**, 563, (pharmacol)
Nakahiro, M. *et al.*, *Neuropharmacology*, 1986, **25**, 227, (pharmacol)
Sasaki, T. *et al.*, *Brain Dev.*, 1991, **13**, 52, (tox)
Martindale, *The Extra Pharmacopoeia*, 30th edn., *Pharmaceutical Press*, 1993, 1347
Negwer, M., *Organic-Chemical Drugs and their Synonyms*, 7th edn., *Akademie-Verlag*, 1994, 2141, (synonyms)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., *Van Nostrand Reinhold*, 1992, CAT125