



>>Entry Name: Asparaginase, 9CI, USAN

Synonym(s): Crisantaspase, BAN. Colaspase. Asparagine amidohydrolase. Crasnitin. Elspar. Kidrolase. Leucogen. Leunase. MK 965. NSC 109229. Re 82-TAD-15. Asnase. Erwinase

CAS Registry Number: 9015-68-3

Biological Source: Antineoplastic enzyme isol. from *E. coli*

Use/Importance: Antileukaemic agent

Physical Description: Cryst. powder

Optical Rotation: $[\alpha]_{\text{D}}^{20} -30$ (H₂O)

Solubility: Sol. H₂O

Hazard & Toxicity: Adverse human systemic effects reported when used therapeutically, incl. hypersensitivity reactions, hepatic effects and pancreatitis. Exp. reprod. and teratogenic effects. LD₅₀ (rat, ipr) 8204 mg/kg

Fluka: 11187

Sigma: A4517

References:

Tower, D.B. *et al.*, *J. Biol. Chem.*, 1963, **238**, 983, (*synth*)

Ho, P.P.K. *et al.*, *J. Biol. Chem.*, 1970, **245**, 3708, (*synth*)

Wriston, J.C., *Adv. Enzymol. Relat. Areas Mol. Biol.*, 1973, **39**, 185, (*rev*)

Lee, B. *et al.*, *J. Biol. Chem.*, 1973, **248**, 7620, (*cryst struct*)

Itai, A. *et al.*, *J. Mol. Biol.*, 1976, **105**, 321, (*cryst struct*)

Charles, L.M. *et al.*, *Cancer Treat. Rep.*, 1981, **65**, 39; 47; 111, (*revs*)

Capizzi, R.L. *et al.*, *Enzymes Drugs*, 1981, 1, (*rev*)

Wlodawer, A., *J. Mol. Biol.*, 1985, **184**, 179, (*cryst struct*)

Clausen, N. *et al.*, *Clin. Chim. Acta*, 1986, **161**, 111, (*anal*)

Tanaka, S. *et al.*, *J. Biol. Chem.*, 1988, **263**, 8583, (*cryst struct*)

Martindale, *The Extra Pharmacopoeia*, 30th edn., Pharmaceutical Press, 1993, 456

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, ARN800