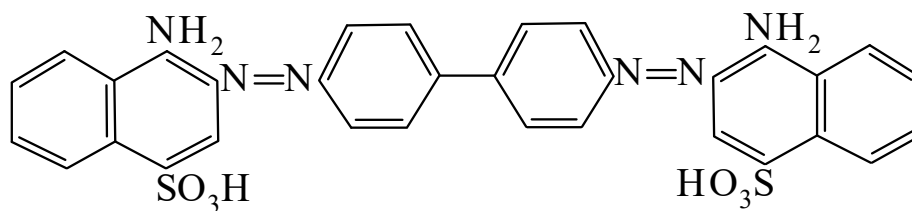




>>Entry Name: Congo red

Synonym(s): 3,3'-[(1,1'-Biphenyl)-4,4'-diylbis(azo)]bis[4-amino-1-naphthalenesulfonic acid], 9Cl. C.I. Direct red 28. Direct red. Haemomedical. Haemonorm. Hemorrhagyl. Solucongo. C.I. 22120



Molecular Formula: C₃₂H₂₄N₆O₆S₂

Molecular Weight: 652.71

Accurate Mass: 652.119874

Percentage Composition: C 58.89%; H 3.71%; N 12.88%; O 14.71%; S 9.83%

General Statement: Strictly, the name Congo red applies to the disodium salt

Use/Importance: Inhibits neurotoxic effects of fibrillar β -amyloid peptides (implications for treatment of Alzheimer's disease). Inhibits replication and accumulation of agent responsible for scrapie. Indicator used for diagnosis of amyloidosis. Also used to detect acute-phase serum proteins. Acid-base indicator (pH range: 3.0-5.2). Biological stain

Calculated Log P Data: Log P 5.09 (calc)

>>Derivative: Di-Na salt

CAS Registry Number: 573-58-0

Physical Description: Brown-red powder

Solubility: Sol. H₂O

Hazard & Toxicity: Cardiovascular effects by ingestion. Exp. reprod. and teratogenic effects

Aldrich: 19845-5

Fluka: 60910

Sigma: C6767

References:

- Aldrich Library of FT-IR Spectra, 1st edn.*, 1985, **2**, 993C, (ir)
Whitehead, G., *Chem. Trade J. Chem. Eng.*, 1925, **77**, 386, (manuf)
Bishop, E., *Indicators*, Pergamon, Oxford, 1972, (use, ind)
Caughey, B. *et al.*, *J. Virol.*, 1994, **68**, (pharmacol)
Lorenzo, A. *et al.*, *Proc. Natl. Acad. Sci. U.S.A.*, 1994, **91**, 12243, (pharmacol)
Rybarska, J. *et al.*, *J. Physiol. Pharmacol.*, 1995, **46**, 221, (use)
Ingrosso, L. *et al.*, *J. Virol.*, 1995, **69**, 506, (pharmacol)
Martindale, The Extra Pharmacopoeia, 31st edn., Pharmaceutical Press, 1996, 1102
Podlisny, M.B. *et al.*, *Biochemistry*, 1998, **37**, 3602-3611, (pharmacol)
Caspi, S. *et al.*, *J. Biol. Chem.*, 1998, **273**, 3484-3489, (pharmacol)
Sigma-Aldrich Library of Stains, Dyes and Indicators, 220
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn.*, Van Nostrand Reinhold, 1992, SGQ500