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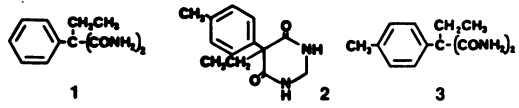
Biochemical Tools

Anticonvulsant drugs - metabolites and analytical standards

Primidone:

2-Ethyl-2-phenylmalonamide (1,PEMA) is a metabolite[1]; **4-methylprimidone (2)** and **2-ethyl-2-(*p*-tolyl)malonamide (3, MPEMA)** are reference standards.



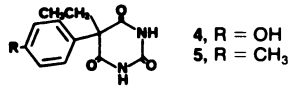
1 2 3

1) *J. Chromatogr. Sci.*, **145**, 97 (1978).

19,502-2	2-Ethyl-2-phenylmalonamide monohydrate	250mg $5.00 1g $16.00
19,494-8	4-Methylprimidone	250mg $10.20; 1g $26.95
19,496-4	2-Ethyl-2-(*p*-tolyl)malonamide	250mg $6.05 1g $17.60

Phenobarbital:

5-Ethyl-5-(*p*-hydroxyphenyl)barbituric acid (4) is a metabolite,[2] and **5-ethyl-5-*p*-tolylbarbituric acid (5)** is a reference standard.[3]



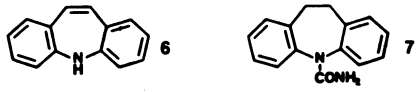
4, R = OH
5, R = CH_3

2) *Eur. J. Clin. Pharmacol.*, **9**, 161 (1975); *J. Pharmacol. Exp. Ther.*, **116**, 326 (1956). 3) *J. Chromatogr. Sci.*, **12**, 256 (1974); *Res. Commun. Chem. Pathol. Pharmacol.*, **13**, 41 (1976).

19,501-4	5-Ethyl-5-(*p*-hydroxyphenyl)barbituric acid monohydrate	100mg $38.50
17,957-4	5-Ethyl-5-*p*-tolylbarbituric acid	250mg $9.75 1g $25.90

Carbamazepine:

Iminostilbene (6) is a metabolite;[4] **10,11-dihydrocarbamazepine (7)** is a reference standard.[5]



6 7

4) *Clin. Chim. Acta*, **43**, 69 (1973); *J. Pharm. Pharmacol.*, **25**, 340 (1973); *Anal. Chem.*, **45**, 1846 (1973). 5) *Clin. Pharmacol. Ther.*, **14**, 827 (1973); *J. Chromatogr.*, **145**, 97 (1978).

14,365-0	Iminostilbene	10g $12.50; 100g $81.05
19,542-1	10,11-Dihydrocarbamazepine	100mg $6.60

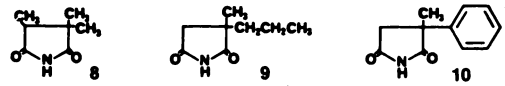
These products are sold for laboratory use only and are not intended for drug use.

Ethosuximide:

α,α-Dimethyl-β-methylsuccinimide (8)[6] and **α-methyl-α-propylsuccinimide (9)**[7] are reference standards.

Methsuximide:

α-Methyl-α-phenylsuccinimide (10) is a major metabolite.[8]



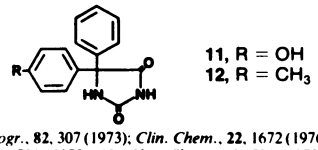
8 9 10

6) *J. Clin. Pharmacol.*, **9**, 393 (1969); *Clin. Chim. Acta*, **33**, 87 (1971); *ibid.*, **60**, 285 (1975); *J. Chromatogr. Sci.*, **12**, 630 (1974). 7) *J. Anal. Toxicol.*, **2**, 39 (1978). 8) *J. Pharm. Sci.*, **62**, 1820 (1973); *Br. J. Pharmacol.*, **45**, 48 (1972).

16,350-3	α,α-Dimethyl-β-methylsuccinimide	250mg $17.65; 1g $46.45
19,495-6	α-Methyl-α-propylsuccinimide	250mg $8.80 1g $27.50
86,058-1	α-Methyl-α-phenylsuccinimide	250mg $8.80 1g $27.50

5,5-Diphenylhydantoin:

5-(*p*-Hydroxyphenyl)-5-phenylhydantoin (11, HPPH) is a major metabolite;[9] **5-(*p*-methylphenyl)-5-phenylhydantoin (12, MPPH)** is a reference standard.[10]



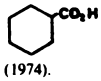
11, R = OH
12, R = CH_3

9) *J. Chromatogr.*, **82**, 307 (1973); *Clin. Chem.*, **22**, 1672 (1976); *Clin. Pharmacol. Ther.*, **14**, 791 (1973). 10) *Clin. Chem.*, **19**, 590 (1973); *ibid.*, **21**, 751 (1975); *Clin. Chim. Acta*, **48**, 135 (1973); *ibid.*, **62**, 73 (1975); *J. Chromatogr. Sci.*, **12**, 256 (1974).

16,192-6	5,5-Diphenylhydantoin	100g $6.70; 500g $30.45
16,154-3	5-(*p*-Hydroxyphenyl)-5-phenylhydantoin	1g $10.70; 5g $35.35
16,145-4	5-(*p*-Methylphenyl)-5-phenylhydantoin	1g $7.10; 5g $18.30

Di-n-propylacetic acid (valproic acid):

Cyclohexanecarboxylic acid is a reference standard.[11]



11) *Pharm. Weekbl.*, **109**, 1 (1974).

10,183-4	Cyclohexanecarboxylic acid	100g $6.50 500g $23.00

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