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DATASHEET

Evans blue

Product overview

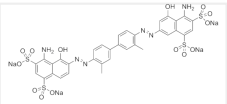
Name	Evans blue
Cat No	HB0280
Alternative names	EB; T-1824
Biological description	Potent AMPA and kainate receptor antagonist (IC_{50} values are 150 and 220 nM for GluK2 and GluA1 respectively). Vesicular L-glutamate uptake inhibitor. Also a selective P2X-purinoceptor antagonist. Commonly used as a dye.
Biological action	Dyes & stains
Purity	>95%
Description	Potent AMPA / kainate receptor antagonist. Vesicular L-glutamate uptake inhibitor.

Images

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in water (10mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	6,6-[(3,3'-Dimethyl[1,1'-biphenyl]-4, 4'-diyl)bis(azo)*bis*[4-amino-5-hydroxy-1,3-naphthalenedisulphonic acid] tetrasodium salt
Molecular Weight	960.82
Chemical structure	
Molecular Formula	$C_{34}H_{24}N_6Na_4O_{14}S_4$
CAS Number	314-13-6
PubChem identifier	9409
SMILES	CC1=C(C=CC(=C1)C2=CC(=C(C=C2)N=NC3=C(C4=C(C=C3)C(=CC(=C4N)S(=O)(=O)[O-])S(=O)(=O)[O-])O)C)N=NC5=C(C6=C(C=C5)C(=CC(=C6N)S(=O)(=O)[O-])S(=O)(=O)[O-])O.[Na+].[Na+].[Na+].[Na+]
InChiKey	ATNOAWAQFYGAOY-UHFFFAOYSA-J
MDL number	MFCD00004021

Chemical name	6,6-[(3,3'-Dimethyl[1,1'-biphenyl]-4, 4'-diyl)bis(azo)*bis*[4-amino-5-hydroxy-1,3-naphthalenedisulphonic acid] tetrasodium salt
Appearance	Blue solid

References

Uptake of L-glutamate into synaptic vesicles: competitive inhibition by dyes with biphenyl and amino- and sulphonic acid-substituted naphthyl groups.

Roseth S *et al* (1998) Biochem Pharmacol 56(9)
PubMedID 9802337

P2-purinoceptor antagonists: II. Blockade of P2-purinoceptor subtypes and ecto-nucleotidases by compounds related to Evans blue and trypan blue.

Wittenburg H *et al* (1996) Naunyn Schmiedebergs Arch Pharmacol 354(4)
PubMedID 8897453

Evans blue antagonizes both alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate and kainate receptors and modulates receptor desensitization.

Price CJ *et al* (1996) Mol Pharmacol 50(6)
PubMedID 8967991

Differential modulation of AMPA receptor mediated currents by evans blue in postnatal rat hippocampal neurones.

Schürmann B *et al* (1997) Br J Pharmacol 121(2)
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