Product Data Sheet

Product Name: DU717
Cat. No.: GC32647

Chemical Properties

Cas. No.	59943-31-6		
SMILES	CN1CCN(C2=NC3=CC=C(Cl)C=C3S(N2)(=O)=O)CC1		
Formula	$C_{12}H_{15}ClN_4O_2S$	M.Wt	314.79
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	DU717		

Protocol

Caution: Product has not been fully validated for medical applications. For research use only.
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Animal experiment:

Rats[2] DU-717 (100mg/kg per day, p.o.)-treated SHRSP, SHRSP fed on a HFC diet (including 20% suet, 5% cholesterol and 2% cholic acid) with 1% NaCl in the drinking water, ALR and NAR, 15 rats in each group, are used for EEG recording. Rats, anesthetized with intraperitoneal injection of pentobarbital (30mg/kg), are placed in a stereotaxic frame for exposing the skull, and 6 small pores of 1mm in diameter are made by a dental drill at frontal, parietal, and occipital areas on both sides. Then, stainless steel electrodes (220μ in diameter), insulated except a small loop which is formed at the tip in order to avoid any injury to the dura and the cortex, are inserted through the pores of the skull and settled gently on the dura. Electrodes on both sides are located 2mm apart from mid-sagittal line, and frontal (F), parietal (P), occipital (O) electrodes are located 5mm, 2.5 mm, and 0mm anterior to the interauricular line, respectively. The indifferent electrode (I) is placed on the mid-sagittal line, 4mm anterior to the bregma. All electrodes are connected with insulated copper wires to a miniature receptacle, and the whole assembly is embedded in dental cement. Two weeks after the operation, EEG is repeatedly recorded for several months. When EEG is recorded, rats are in a clear plastic cage (30×40×40cm) and could move freely. EEG is recorded by a ME-920, connected to an autoanalyzer MAF-5, and a photic stimulator is MS-2PS. Monopolar (I-F, I-P, I-O), and bipolar (F-P, P-O, O-F) leading are recorded. EEG is recorded during wakefulness and drowsiness. The recording calibration is 3cm/sec and 100μV/4mm.

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References:

[1]. Yamaguchi T, et al. Determination of 7-chloro-3-(4-methyl-1-piperazinyl)-4h-1,2,4-benzothiadiazine-1,1-dioxide (DU-717) in plasma using electron-capture gas chromatography. J Chromatogr. 1978 Oct 11;160(1):181-90.
[2]. R Horie. rats (ALR) and normotensive atherogenic rats (NAR).

Background

DU-717 is an antihypertensive agent.

A gas chromatographic method has been developed which enables accurate determination of a new antihypertensive agent, DU-717, in plasma. Accurate determinations are possible over a concentration range from 10 to 150 ng/mL of DU-717 in plasma at a relative standard deviation of 6.2%. The minimum detectable concentration is 1 ng/mL. Plasma levels of DU-717 in spontaneously hypertensive and normotensive rats following single oral administrations (10 mg/kg) have also been

determined[1].

[1]. Yamaguchi T, et al. Determination of 7-chloro-3-(4-methyl-1-piperazinyl)-4h-1,2,4-benzothiadiazine-1,1-dioxide (DU-717) in plasma using electron-capture gas chromatography. J Chromatogr. 1978 Oct 11;160(1):181-90. [2]. R Horie. rats (ALR) and normotensive atherogenic rats (NAR).

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