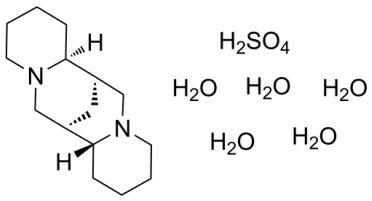
Data Sheet

Product Name:	(+)-Sparteine (sulfate pentahydrate)
Cat. No.:	CS-0166595
Molecular Formula:	$C_{15}H_{38}N_2O_9S$
Molecular Weight:	422.54
Target:	nAChR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Solubility:	DMSO : 33.33 mg/mL (78.88 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

(+)-sparteine (sulfate pentahydrate) is a ganglionic blocking agent. (+)-Sparteine competitively blocks **nicotinic ACh receptor** in the neurons[1]. IC50 & Target: nAChR[1] ***In Vitro:*** (+)-Sparteine (2 μM) (sulfate pentahydrate) reduces the ACh-induced current caused by activation of nicotinic ACh receptors (AChRs) in a voltage-independent manner at membrane potentials of -50 mV to +30 mV, whereas its blocking effect increased at more negative membrane potentials. (+)-sparteine (5 μM and 10 μM) (sulfate pentahydrate) reduces the amplitude of the excitatory postsynaptic currents (EPSC) and the time constant of the EPSC decay[1].

References:

[1]. Voitenko S, et al. Effect of (+)-sparteine on nicotinic acetylcholine receptors in the neurons of rat superior cervical ganglion.

CAIndexNames:

(+)-7,14-Methano-2H,6H-dipyrido[1,2-a:1',2'-e][1,5]diazocine, dodecahydro-, (7S,7aR,14S,14aS)-, sulfate, hydrate (1:1:5)

SMILES:

[H][C@]12CCCCN1C[C@H]3C[C@@H]2CN4CCCC[C@@]34[H].O=S(O)(O)=O.O.O.O.O.O

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

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