Product Data Sheet

Product Name: Thiothixene
Cat. No.: GC18797

Chemical Properties

Cas. No.	5591-45-7		
Chemical Name	N,N-dimethyl-9-[3-(4-methyl-1-piperazinyl)propylidene]-9H-thioxanthene-2-sulfonamide		
SMILES	CN1CCN(CC/C=C2C(C=CC=C3)=C3SC4=C\2C=C(S(N(C)C)(=O)=O)C=C4)CC1		
Formula	$C_{23}H_{29}N_3O_2S_2$	M.Wt	443.6
Solubility	DMF: 0.5 mg/ml,DMSO: 0.2 mg/ml	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	Thiothixene		

Background

Thiothixene is a typical antipsychotic. It selectively binds to dopamine D2 over D1, D3, and D4 receptors (Kis = 0.417, 338, 186.2, and 363.1 nM, respectively). Thiothixene also binds to various serotonin (5-HT), histamine H1, α1- and α2-adrenergic, muscarinic acetylcholine, and sigma receptors (Kis = 15-5,754 nM) as well as the dopamine, norepinephrine, and serotonin transporters (Kis = 3.16-30 μM). In vivo, thiothixene reduces spontaneous and amphetamine-induced locomotor activity in rats. It enhances latent inhibition, as measured by a decreased lick latency in response to light and foot shock stimuli, which is a measure of selective attention in rats. Thiothixene also increases competitive behavior in submissive mice, indicating antidepressant-like behavior. Formulations containing thiothixene have been used in the treatment of schizophrenia and bipolar mania.

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