
Product Data Sheet

Product Name: Tizanidine

Cat. No.: GC15629

Chemical Properties

Cas. No. 51322-75-9

Chemical Name 5-chloro-N-(4,5-dihydro-1H-imidazol-2-yl)-2,1,3-benzothiadiazol-4-amine

SMILES C1CN=C(N1)NC2=C(C=CC3=NSN=C32)ClFormula $C_9H_8ClN_5S$ M.Wt 253.71Solubility $\geq 11.45\text{mg/mL}$ in DMSO Storage Store at -20°C General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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

Background

Tizanidine is an α_2 -adrenergic receptor agonist and inhibits neurotransmitter release from CNS noradrenergic neurons. Target: α_2 -adrenergic receptor. Tizanidine is a drug that is used as a muscle relaxant. It is a centrally acting α_2 adrenergic agonist. It is used to treat the spasms, cramping, and tightness of muscles caused by medical problems such as multiple sclerosis, ALS, spastic diplegia, back pain, or certain other injuries to the spine or central nervous system. It is also prescribed off-label for migraine headaches, as a sleep aid, and as an anticonvulsant. It is also prescribed for some symptoms of fibromyalgia. Tizanidine has been found to be as effective as other antispasmodic drugs and has superior tolerability to that of baclofen and diazepam. Tizanidine can be very strong even at the 2 mg dose and may cause hypotension, so caution is advised when it is used in patients who have a history of orthostatic hypotension, or when switching from gel cap to tablet form and vice versa. Tizanidine can occasionally cause liver damage, generally the hepatocellular type. Clinical trials show that up to 5% of patients treated with tizanidine had elevated liver function test values, though symptoms disappeared

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

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upon withdrawal of the drug. Care should be used when first beginning treatment with tizanidine with regular liver tests for the first 6 months of treatment.

References:

[1]. Kamen L, et al. A practical overview of tizanidine use for spasticity secondary to multiple sclerosis, stroke, and spinal cord injury. *Curr Med Res Opin.* 2008 Feb;24(2):425-39.

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