

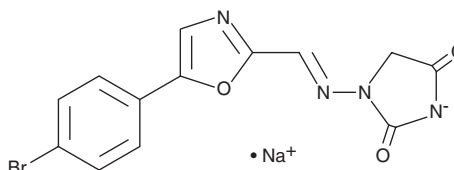
PRODUCT INFORMATION



Azumolene (sodium salt)

Item No. 16462

CAS Registry No.: 105336-14-9
Formal Name: 1-[[[5-(4-bromophenyl)-2-oxazolyl]methylene]amino]-2,4-imidazolidinedione, monosodium salt
Synonym: EU4093
MF: C₁₃H₈BrN₄O₃ • Na
FW: 371.1
Purity: ≥98%
UV/Vis.: λ_{max}: 259, 338 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Azumolene (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the azumolene (sodium salt) in the solvent of choice, which should be purged with an inert gas. Azumolene (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of azumolene (sodium salt) in these solvents is approximately 2 and 10 mg/ml, respectively.

Azumolene (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, azumolene (sodium salt) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Azumolene (sodium salt) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Azumolene is a muscle relaxant that inhibits the release of calcium from skeletal muscle sarcoplasmic reticulum.^{1,2} It inhibits a component of store-operated calcium entry (SOCE) that is coupled to the skeletal muscle ryanodine receptor, with 20 μM azumolene causing a 70% reduction in SOCE in myotubes.^{3,4} Azumolene has utility in countering muscle dysfunction associated with malignant hyperthermia.⁴

References

1. Palnitkar, S.S., Michelson, J.R., Louis, C.F., *et al.* Pharmacological distinction between dantrolene and ryanodine binding sites: Evidence from normal and malignant hyperthermia-susceptible porcine skeletal muscle. *Biochem. J.* **326 (Pt 3)**, 847-852 (1997).
2. Leslie, G.C. and Part, N.J. The effect of EU4093 (azumolene sodium) on the contraction of intrafusal muscle in the soleus muscle of the anaesthetized rat. *Br. J. Pharmacol.* **97(4)**, 1151-1156 (1989).
3. Zhao, X., Weisleder, N., Han, X., *et al.* Azumolene inhibits a component of store-operated calcium entry coupled to the skeletal muscle ryanodine receptor. *J. Biol. Chem.* **281(44)**, 33477-33486 (2006).
4. Yarotsky, V., Protasi, F., and Dirksen, R.T. Accelerated activation of SOCE current in myotubes from two mouse models of anesthetic- and heat-induced sudden death. *PLoS One* **8(10)**, 1-12 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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