

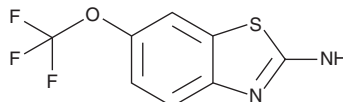
PRODUCT INFORMATION



Riluzole

Item No. 35833

CAS Registry No.: 1744-22-5
Formal Name: 6-(trifluoromethoxy)-2-benzothiazolamine
Synonyms: BHV 0223, BHV 0233, PK26124, RP 54274
MF: $C_8H_5F_3N_2OS$
FW: 234.2
Purity: $\geq 98\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

Riluzole is supplied as a solid. A stock solution may be made by dissolving the riluzole in the solvent of choice, which should be purged with an inert gas. Riluzole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of riluzole in these solvents is approximately 10 mg/ml.

Description

Riluzole is an inhibitor of calcium channels.¹ It is selective for the voltage-gated calcium channels $Ca_v2.2$ and $Ca_v2.1$ over $Ca_v1.2$ at 30 μM . Riluzole (10 μM) inhibits increases in intracellular calcium levels induced by NMDA (Item No. 14581), L-glutamic acid (Item No. 30377), or veratridine in primary rat cerebellar granule cells.³ It reduces glutamate, but not aspartate, release from the left caudate nucleus in cats when used at a concentration of 10 μM .⁴ Riluzole reduces slow wave activity and increases high frequency neuronal activity induced by carotid artery occlusion (CAO) in gerbils in a dose-dependent manner and decreases the CAO-induced infarcted cortex volume in rats when administered at a dose of 8 mg/kg.⁵ Dietary administration of riluzole (44 mg/kg per day) increases survival time and the total distance ran in an SOD1-G93A transgenic mouse model of amyotrophic lateral sclerosis (ALS).² Formulations containing riluzole have been used in the treatment of ALS.

References

1. Huang, C.-S., Song, J.-H., Nagata, K., *et al.* Effects of the neuroprotective agent riluzole on the high voltage-activated calcium channels of rat dorsal root ganglion neurons. *J. Pharmacol. Exp. Ther.* **282**(3), 1280-1290 (1997).
2. Gurney, M.E., Fleck, T.J., Himes, C.S., *et al.* Riluzole preserves motor function in a transgenic model of familial amyotrophic lateral sclerosis. *Neurology* **50**(1), 62-66 (1998).
3. Hubert, J.P., Delumeau, J.C., Glowinski, J., *et al.* Antagonism by riluzole of entry of calcium evoked by NMDA and veratridine in rat cultured granule cells: Evidence for a dual mechanism of action. *Br. J. Pharmacol.* **113**(1), 261-267 (1994).
4. Chéramy, A., Barbeito, L., Godeheu, G., *et al.* Riluzole inhibits the release of glutamate in the caudate nucleus of the cat in vivo. *Neurosci. Lett.* **147**(2), 209-212 (1992).
5. Pratt, J., Rataud, J., Bardot, F., *et al.* Neuroprotective actions of riluzole in rodent models of global and focal cerebral ischaemia *Neurosci. Lett.* **140**(2), 225-230 (1992).

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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