

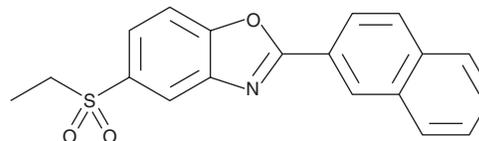
# PRODUCT INFORMATION



## Ezutromid

Item No. 20309

**CAS Registry No.:** 945531-77-1  
**Formal Name:** 5-(ethylsulfonyl)-2-(2-naphthalenyl)-benzoxazole  
**Synonyms:** BMN 195, SMT-C1100, VOX-C1100  
**MF:** C<sub>19</sub>H<sub>15</sub>NO<sub>3</sub>S  
**FW:** 337.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 236, 255, 262, 314 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

Ezutromid is supplied as a crystalline solid. A stock solution may be made by dissolving the ezutromid in the solvent of choice. Ezutromid is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of ezutromid in these solvents is approximately 3 and 2 mg/ml, respectively.

Ezutromid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ezutromid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ezutromid has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Ezutromid is a modulator of utrophin production.<sup>1</sup> It upregulates utrophin production in mouse myoblasts (EC<sub>50</sub> = 0.91 μM in a reporter assay).<sup>2</sup> It inhibits the activity of the cytochrome P450 (CYP) isoform CYP1A2 in pooled human liver microsomes (IC<sub>50</sub> = 5.4 μM).<sup>3</sup> Chronic administration of ezutromid (50 mg/kg) increases utrophin protein levels in the heart, increases grip strength, and decreases fatigue, indicated by distance traveled during forced exercise, in the *mdx* mouse model of muscular dystrophy.<sup>1</sup>

### References

1. Tinsley, J.M., Fairclough, R.J., Storer, R., *et al.* Daily treatment with SMTC1100, a novel small molecule utrophin upregulator, dramatically reduces the dystrophic symptoms in the *mdx* mouse. *PLoS One* **6(5)**, e19189 (2011).
2. Chancellor, D.R., Davies, K.E., De Moor, O., *et al.* Discovery of 2-arylbenzoxazoles as upregulators of utrophin production for the treatment of Duchenne muscular dystrophy. *J. Med. Chem.* **54(9)**, 3241-3250 (2011).
3. Chatzopoulou, M., Claridge, T.D.W., Davies, K.E., *et al.* Isolation, structural identification, synthesis, and pharmacological profiling of 1,2-*trans*-dihydro-1,2-diol metabolites of the utrophin modulator ezutromid. *J. Med. Chem.* **63(5)**, 2547-2556 (2020).

#### 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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