

## Produktinformation



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# PRODUCT INFORMATION



#### N-(2,6-Dimethylphenyl)-2-(ethylmethylamino)acetamide (hydrochloride) Item No. 18463

CAS Registry No.: 50295-20-0

Formal Name: N-(2,6-dimethylphenyl)-2-

(ethylmethylamino)-acetamide,

monohydrochloride

Synonyms: Lidocaine Impurity K, RAD240

 $C_{13}H_{20}N_2O \bullet HCI$ MF:

FW: 256.8 **Purity:** ≥98%

Stability: ≥2 years at -20°C Supplied as: A crystalline solid

# • HCI

#### **Laboratory Procedures**

For long term storage, we suggest that N-(2,6-dimethylphenyl)-2-(ethylmethylamino)acetamide (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

N-(2,6-Dimethylphenyl)-2-(ethylmethylamino)acetamide (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the N-(2,6-dimethylphenyl)-2-(ethylmethylamino) acetamide (hydrochloride) in the solvent of choice. N-(2,6-Dimethylphenyl)-2-(ethylmethylamino)acetamide (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of N-(2,6-dimethylphenyl)-2-(ethylmethylamino)acetamide (hydrochloride) in ethanol is approximately 25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of N-(2,6-dimethylphenyl)-2-(ethylmethylamino)acetamide (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N-(2,6-dimethylphenyl)-2-(ethylmethylamino)acetamide (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

Lidocaine is an anesthetic that blocks voltage-gated Na $^+$  channels (IC $_{50}$  = 128  $\mu$ M) with selectivity over L-type Ca<sup>2+</sup> channels and GABA<sub>A</sub> receptors. Lidocaine can also have pronociceptive effects by activating the transient receptor potential (TRP) channel TRPA1.<sup>2</sup> N-(2,6-Dimethylphenyl)-2-(ethylmethylamino) acetamide is a lidocaine impurity.3,4

#### References

- 1. Lingamaneni, R. and Hemmings, H.C., Jr. Br. J. Anaesth. 90(2), 199-211 (2003).
- 2. Baraldi, P.G., Preti, D., Materazzi, S., et al. J. Med. Chem. 53(14), 5085-5107 (2010).
- 3. Hommerson, P., Khan, A.M., Bristow, T., et al. Rapid Commun. Mass Spectrom. 23(18), 2878-2884 (2009).
- 4. Prathyusha, P., Shanmugasundaram, P., and Naidu, P.Y. IJAPA 3(1), 1-10 (2013).

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

al 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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