

# PRODUCT INFORMATION



## Moexipril (hydrochloride)

Item No. 21255

**CAS Registry No.:** 82586-52-5  
**Formal Name:** 2-[[[2S]-2-[[[(1S)-1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-3S-isoquinolinecarboxylic acid, monohydrochloride

**Synonyms:** CI-925, RS 10085-197, SPM 925

**MF:** C<sub>27</sub>H<sub>34</sub>N<sub>2</sub>O<sub>7</sub> • HCl

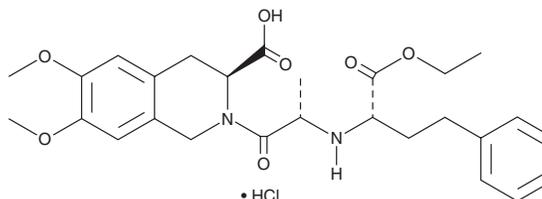
**FW:** 535.0

**Purity:** ≥98%

**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

Moexipril (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the moexipril (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Moexipril (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of moexipril (hydrochloride) in these solvents is approximately 25, 30, and 10 mg/ml, respectively.

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 moexipril (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of moexipril (hydrochloride) in PBS, pH 7.2, is approximately 0.33 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Moexipril is a prodrug form of the angiotensin converting enzyme (ACE) inhibitor moexiprilat.<sup>1</sup> It is converted to moexiprilat *in vivo* by side chain ester hydrolysis.<sup>2</sup> Moexipril inhibits ACE in a cell-free assay (IC<sub>50</sub> = 2.7 μM for the rabbit enzyme).<sup>1</sup> It also inhibits phosphodiesterase 4 (IC<sub>50</sub>s = 38, 160, and 230 μM for PDE4B2, PDE4A5, and PDE4D5, respectively).<sup>2</sup> Moexipril (0.1-30 mg/kg per day) reduces blood pressure in spontaneously hypertensive rats.<sup>1</sup> It also reduces infarct volume in a rat model of focal cerebral ischemia when used at a concentration of 0.01 mg/kg.<sup>3</sup>

### References

1. Edling, O., Bao, G., Feelisch, M., *et al.* Moexipril, a new angiotensin-converting enzyme (ACE) inhibitor: Pharmacological characterization and comparison with enalapril. *J. Pharmacol. Exp. Ther.* **275**(2), 854-863 (1995).
2. Cameron, R.T., Coleman, R.G., Day, J.P., *et al.* Chemical informatics uncovers a new role for moexipril as a novel inhibitor of cAMP phosphodiesterase-4 (PDE4). *Biochem. Pharmacol.* **85**(9), 1297-1305 (2013).
3. Ravati, A., Junker, V., Kouklei, M., *et al.* Enalapril and moexipril protect from free radical-induced neuronal damage *in vitro* and reduce ischemic brain injury in mice and rats. *Eur. J. Pharmacol.* **373**(1), 21-33 (1999).

#### 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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