

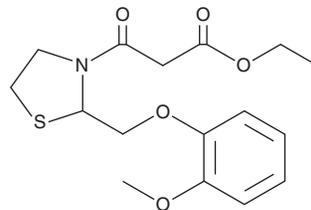
# PRODUCT INFORMATION



## Moguisteine

Item No. 30362

**CAS Registry No.:** 119637-67-1  
**Formal Name:** 2-[(2-methoxyphenoxy)methyl]-β-oxo-3-thiazolidinepropanoic acid, ethyl ester  
**Synonym:** BBR 2173  
**MF:** C<sub>16</sub>H<sub>21</sub>NO<sub>5</sub>S  
**FW:** 339.4  
**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

Moguisteine is supplied as a crystalline solid. A stock solution may be made by dissolving the moguisteine in the solvent of choice, which should be purged with an inert gas. Moguisteine is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of moguisteine in these solvents is approximately 10 and 15 mg/ml, respectively.

Moguisteine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, moguisteine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Moguisteine has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Moguisteine is a peripherally acting antitussive agent.<sup>1,2</sup> It inhibits the citric acid-induced cough reflex in conscious guinea pigs but not the cough reflex induced by electrical stimulation of the afferent superior laryngeal nerve in anesthetized guinea pigs (ED<sub>50</sub>s= 5.5 and >20 mg/kg, respectively).<sup>2</sup> Moguisteine (75 and 150 mg/kg, p.o.) prevents bronchoalveolar lavage fluid (BALF) eosinophil and neutrophil infiltration in an ovalbumin-sensitized guinea pig model of allergic airway inflammation.<sup>3</sup> It inhibits increases in tracheal and bronchial plasma exudation induced by cigarette smoke in anesthetized guinea pigs when administered at a dose of 30 mg/kg.

### References

1. Gandolfi, C.A., Di Domenico, R., Spinelli, S., *et al.* N-acyl-2-substituted-1,3-thiazolidines, a new class of non-narcotic antitussive agents: Studies leading to the discovery of ethyl 2-[(2-methoxyphenoxy)methyl]-beta-oxothiazolidine-3-propanoate. *J. Med. Chem.* **38(3)**, 508-525 (1995).
2. Ishii, R., Furuta, M., Hashimoto, M., *et al.* Effects of moguisteine on the cough reflex induced by afferent electrical stimulation of the superior laryngeal nerve in guinea pigs. *Eur. J. Pharmacol.* **362(2-3)**, 207-212 (1998).
3. Gallico, L., Oggioni, N., Dalla Rosa, C., *et al.* Effects of moguisteine, a peripheral nonnarcotic antitussive agent, on airway inflammation in guinea-pigs *in vivo*. *Eur. Respir. J.* **9(3)**, 478-485 (1996).

#### 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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