

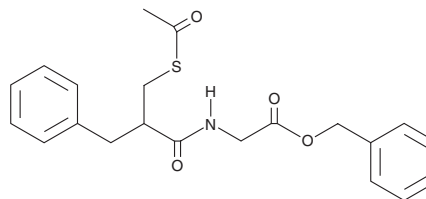
PRODUCT INFORMATION



Racecadotril

Item No. 20390

CAS Registry No.: 81110-73-8
Formal Name: N-[2-[(acetylthio)methyl]-1-oxo-3-phenylpropyl]-glycine, phenylmethyl ester
Synonym: Acetorphan
MF: C₂₁H₂₃NO₄S
FW: 385.5
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

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

Racecadotril is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, racecadotril should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Racecadotril has a solubility of approximately 0.16 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Racecadotril is a prodrug form of the neprilysin (NEP) inhibitor thiorphan (Item No. 15600).^{1,2} *In vivo*, racecadotril reduces or prevents castor oil-induced diarrhea without delaying intestinal transit in rats when administered at doses of 80 or 100 mg/kg, respectively.¹ It also decreases the duration of diarrhea and increases body weight gain in a neonatal gnotobiotic pig model of human rotavirus-induced diarrhea.² Formulations containing racecadotril have been used in the treatment of acute diarrhea.

References

1. Griggs, D.W., Prinsen, M.J., Oliva, J., *et al.* Pharmacologic comparison of clinical neutral endopeptidase inhibitors in a rat model of acute secretory diarrhea. *J. Pharmacol. Exp. Ther.* **357**(2), 423-431 (2016).
2. Bui, T., Li, G., Kim, I., *et al.* Effects of racecadotril on weight loss and diarrhea due to human rotavirus in neonatal gnotobiotic pigs (*Sus scrofa domestica*). *Comp. Med.* **67**(2), 157-164 (2017).

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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