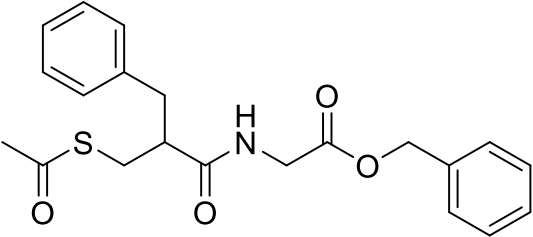


Product data sheet



MedKoo Cat#: 326804 Name: Racecadotril CAS: 81110-73-8 Chemical Formula: C ₂₁ H ₂₃ NO ₄ S Exact Mass: 385.1348 Molecular Weight: 385.48	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

Product description:

Racecadotril, also known as acetorphan, is an antidiarrheal drug which acts as a peripherally acting enkephalinase inhibitor. Unlike other opioid medications used to treat diarrhea, which reduce intestinal motility, racecadotril has an antisecretory effect—it reduces the secretion of water and electrolytes into the intestine.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
To be determined	To be determined	To be determined

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.59 mL	12.97 mL	25.94 mL
5 mM	0.52 mL	2.59 mL	5.19 mL
10 mM	0.26 mL	1.30 mL	2.59 mL
50 mM	0.05 mL	0.26 mL	0.52 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Pınarbaşı O, Bulut B, Gurbetoğlu GP, Atılğan N, Sarraçoğlu N, Aybey A. Evaluation of the Effect of Ethyl Acrylate-Methyl Methacrylate Copolymer in Racecadotril Dispersible Tablet. *Turk J Pharm Sci.* 2022 Aug 31;19(4):383-390. doi: 10.4274/tjps.galenos.2021.50432. PMID: 36047514; PMCID: PMC9438762.

In vivo study

1. Li B, Kwok LY, Wang D, Li L, Guo S, Chen Y. Integrating metabolomics, bionics, and culturomics to study probiotics-driven drug metabolism. *Front Pharmacol.* 2023 Jan 26;14:1047863. doi: 10.3389/fphar.2023.1047863. PMID: 36778014; PMCID: PMC9908756.
2. Liang Y, Zhang L, Zeng L, Gordon M, Wen J. Racecadotril for acute diarrhoea in children. *Cochrane Database Syst Rev.* 2019 Dec 19;12(12):CD009359. doi: 10.1002/14651858.CD009359.pub2. PMID: 31858591; PMCID: PMC6923519.

7. Bioactivity

Biological target:

Racecadotril is a prodrug form of the neprilysin inhibitor thiorphan. In vivo, racecadotril reduces or prevents castor oil-induced diarrhea without delaying intestinal transit in rats. Racecadotril decreases the duration of diarrhea and increases body weight gain in a

Product data sheet



neonatal gnotobiotic pig model of human rotavirus-induced diarrhea. Racecadotril formulations have been used in acute diarrhea treatment.

In vitro activity

This study demonstrated that a chemically long-term stable racecadotril dispersible tablet product, whose taste is efficiently masked using wet granulation method, had an acceptable release profile. It was obtained with Eudragit® NE 30D ratio higher than 1% and equal or lower than 10% by weight of racecadotril.

Reference: Turk J Pharm Sci. 2022 Aug 31;19(4):383-390. <https://pubmed.ncbi.nlm.nih.gov/36047514/>

In vivo activity

Lactisacibacillus casei Zhang metabolized racecadotril to its active products in monoculture, a simulated human digestion system, and an ex vivo fecal co-culture system. A personalized effect was observed in the racecadotril-metabolizing activity of L. casei Zhang, depending individual host gut microbiome composition.

Reference: Front Pharmacol. 2023 Jan 26;14:1047863. <https://pubmed.ncbi.nlm.nih.gov/36778014/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.