

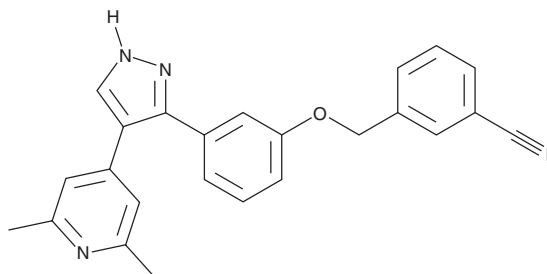
# PRODUCT INFORMATION



## Lolamicin

Item No. 41528

**CAS Registry No.:** 2930690-12-1  
**Formal Name:** 3-[[3-[4-(2,6-dimethyl-4-pyridinyl)-1H-pyrazol-3-yl]phenoxy]methyl]-benzonitrile  
**MF:** C<sub>24</sub>H<sub>20</sub>N<sub>4</sub>O  
**FW:** 380.4  
**Purity:** ≥98%  
**Supplied as:** A 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

Lolamicin is supplied as a solid. A stock solution may be made by dissolving the lolamicin in the solvent of choice, which should be purged with an inert gas. Lolamicin is soluble (≥10 mg/ml) in ethanol and DMSO.

### Description

Lolamicin is a Gram-negative-selective antibiotic.<sup>1</sup> It is selective for Gram-negative pathogenic bacteria, such as *E. coli*, *S. typhimurium*, and *E. cloacae* (MICs = 0.008-8 µg/ml), over Gram-negative commensal bacteria and Gram-positive pathogenic and commensal bacteria (MICs = >128 µg/ml). Lolamicin is also active against multidrug-resistant clinical isolates of *E. coli*, *K. pneumoniae*, and *E. cloacae*. Lolamicin-resistant bacteria contain mutations in LolC and LolE, which encode subunits of the LolCDE lipoprotein transport system. *In vivo*, lolamicin (100 mg/kg) increases survival and decreases lung colony-forming units (CFUs) in multiple mouse models of septicemia and pneumonia, respectively. It also does not affect fecal bacterial taxonomic composition in healthy mice nor allow *C. difficile* colonization in *C. difficile*-challenged mice when administered at a dose of 200 mg/kg.

### Reference

1. Muñoz, K.A., Ulrich, R.J., Vasan, A.K., *et al.* A Gram-negative-selective antibiotic that spares the gut microbiome. *Nature* **630(8016)**, 429-436 (2024).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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