

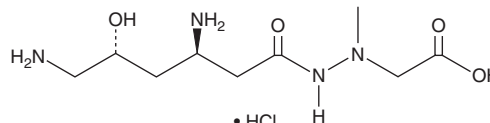
PRODUCT INFORMATION



Negamycin (hydrochloride)

Item No. 37796

Formal Name: N-((3R,5R)-3,6-diamino-5-hydroxyhexanamido)-
N-methylglycine, monohydrochloride
Synonym: (+) Negamycin
MF: $C_9H_{20}N_4O_4 \cdot HCl$
FW: 284.7
Purity: $\geq 80\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years
Item Origin: Bacterium/*Streptomyces* sp. M890-C2



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Negamycin (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the negamycin (hydrochloride) in the solvent of choice. Negamycin (hydrochloride) is soluble in the organic solvent DMSO, which should be purged with an inert gas. Negamycin (hydrochloride) is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

Negamycin is an antibiotic originally found in *Streptomyces*.¹ It is active against various species of bacteria, including *E. coli*, *S. typhosa*, and *K. pneumoniae*, when used at concentrations ranging from 3.12 to 100 $\mu g/ml$. Negamycin (250 μM) stabilizes the interaction between tRNA and ribosomes and decreases the rate of mRNA translation.² It also restores the auditory brainstem response to sound tones in a dystrophin-deficient *mdx* mouse model of Duchenne muscular dystrophy (DMD) when administered at a dose of 100 mg/kg.³

References

1. Hamada, M., Takeuchi, T., Kondo, S., *et al.* A new antibiotic, negamycin. *J. Antibiot. (Tokyo)* **23(3)**, 170-171 (1970).
2. Polikanov, Y.S., Szal, T., Jiang, F., *et al.* Negamycin interferes with decoding and translocation by simultaneous interaction with rRNA and tRNA. *Mol. Cell* **56(4)**, 541-550 (2014).
3. Arakawa, M., Shiozuka, M., Nakayama, Y., *et al.* Negamycin restores dystrophin expression in skeletal and cardiac muscles of *mdx* mice. *J. Biochem.* **134(5)**, 751-758 (2003).

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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