

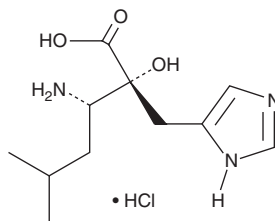
PRODUCT INFORMATION



Leuhistin (hydrochloride)

Item No. 43833

Formal Name: (2R,3S)-2-((1H-imidazol-5-yl)methyl)-3-amino-2-hydroxy-5-methylhexanoic acid, monohydrochloride
MF: C₁₁H₁₉N₃O₃ • HCl
FW: 277.8
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Bacterium/*Bacillus* sp.



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

Laboratory Procedures

Leuhistin (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the leuhistin (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Leuhistin (hydrochloride) is soluble in methanol and DMSO.

Leuhistin (hydrochloride) is soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Leuhistin is a microbial metabolite that has been isolated from *B. laterosporus*.¹ It is an inhibitor of aminopeptidase N (APN; IC₅₀ = 0.23 µg/ml). Leuhistin is selective for APN over APA and APB (IC₅₀s = 10 and 13 µg/ml, respectively). It inhibits the migration and invasion of HT-1080 fibrosarcoma cells when used at a concentration of 100 µg/ml.² Leuhistin (100 µM) also increases motility in isolated human sperm.³

References

1. Aoyagi, T., Yoshida, S., Matsuda, N., *et al.* Leuhistin, a new inhibitor of aminopeptidase M, produced by *Bacillus laterosporus* BMI156-14F1. I. Taxonomy, production, isolation, physico-chemical properties and biological activities. *J. Antibiot. (Tokyo)* **44**(6), 573-578 (1991).
2. Fujii, H., Nakajima, M., Aoyagi, T., *et al.* Inhibition of tumor cell invasion and matrix degradation by aminopeptidase inhibitors. *Biol. Pharm. Bull.* **19**(1), 6-10 (1996).
3. Subirán, N., Pinto, F.M., Agirregoitia, E., *et al.* Control of APN/CD13 and NEP/CD10 on sperm motility. *Asian J. Androl.* **12**(6), 899-902 (2010).

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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