

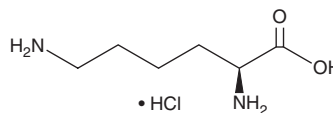
PRODUCT INFORMATION



L-Lysine (hydrochloride)

Item No. 36455

CAS Registry No.: 657-27-2
Formal Name: L-lysine, monohydrochloride
Synonym: NSC 9253
MF: $C_6H_{14}N_2O_2 \cdot HCl$
FW: 182.7
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

L-Lysine (hydrochloride) is supplied as a solid. Aqueous solutions of L-lysine (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of L-lysine (hydrochloride) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-Lysine is an essential amino acid.¹ It is catabolized via the saccharopine pathway to produce acetyl-coenzyme A (acetyl-CoA; Item No. 16160) in liver mitochondria. L-Lysine is also a precursor in the biosynthesis of L-carnitine (Item No. 21489), a conditionally essential nutrient that has roles in energy production and fatty acid metabolism.² L-Lysine (400 mg/kg per day) reduces viral shedding in cats latently infected with feline herpesvirus type 1 (FHV-1).³ Administration of an L-lysine-deficient diet increases fecal pellet excretion induced by restraint stress, indicating increases in anxiety, in rats.⁴ Formulations containing L-lysine have been used as dietary supplements.

References

1. Leandro, J. and Houten, S.M. Saccharopine, a lysine degradation intermediate, is a mitochondrial toxin. *J. Cell Biol.* **218(2)**, 391-392 (2019).
2. Flanagan, J.L., Simmons, P.A., Vehige, J., et al. Role of carnitine in disease. *Nutr. Metab.* **7(30)**, (2010).
3. Maggs, D.J., Nasisse, M.P., and Kass, P.H. Efficacy of oral supplementation with L-lysine in cats latently infected with feline herpesvirus. *Am. J. Vet. Res.* **64(1)**, 37-42 (2003).
4. Smriga, M., Kameishi, M., Uneyama, H., et al. Dietary L-lysine deficiency increases stress-induced anxiety and fecal excretion in rats. *J. Nutr.* **132(12)**, 3744-3746 (2002).

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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