

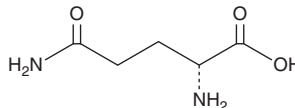
PRODUCT INFORMATION



D-Glutamine

Item No. 27032

CAS Registry No.: 5959-95-5
Synonym: D-Gln
MF: $C_5H_{10}N_2O_3$
FW: 146.1
Purity: $\geq 95\%$
Supplied as: A crystalline 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

D-Glutamine is supplied as a crystalline solid. A stock solution may be made by dissolving the D-glutamine in the solvent of choice, which should be purged with an inert gas. D-Glutamine is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of D-glutamine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D-glutamine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

D-Glutamine is an enantiomer of the conditionally essential amino acid L-glutamine (Item No. 23716). D-Glutamine levels are reduced in the serum of rats in a model of acute pancreatitis.¹ Serum levels of D-glutamine are also reduced in patients with hepatocellular carcinoma.²

References

1. Guo, J., Xuesong, L., Donhong, W., *et al.* Exploring metabolic biomarkers and regulation pathways of acute pancreatitis using ultra-performance liquid chromatography combined with a mass spectrometry-based metabolomics strategy. *RSC Adv.* **9(21)**, 12162-12173 (2019).
2. Han, M., Xie, M., Han, J., *et al.* Development and validation of a rapid, selective, and sensitive LC-MS/MS method for simultaneous determination of D- and L-amino acids in human serum: Application to the study of hepatocellular carcinoma. *Anal. Bioanal. Chem.* **410(10)**, 2517-2531 (2018).

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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