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Product Information

6-Aminocaproic acid
BioUltra

Catalog Number **A7824**
Store at Room Temperature

Molecular Formula: $C_6H_{13}NO_2$
Molecular Weight: 131.2
CAS Number: 60-32-2
pK_a: 4.43 (-COOH), 10.75 ($-NH_2$)[1]
Melting point: 204-206 °C[1]
Synonyms: 6-aminocaproic acid, ε-amino-n-caproic acid, EACA[1]

Product Description

6-Aminohexanoic acid is a lysine analog that has been widely used in studies of blood clotting. EACA has been shown to inhibit the activation of C1 of the complement system, without inhibiting the already active form of C1.[2] EACA has been reported to inhibit binding of plasminogen to activated platelets, using a fluorescent flow cytometry-based assay.[3] EACA has been used in vitro to inhibit clot lysis in blood that has been exogenously induced by tissue plasminogen activator.[4] In a study in cultured rat C6 glioma cells, EACA promotes rapid dissociation of plasmin from the cells, which inhibits the activation of plasminogen and subsequent fibrolysis.[5] The isolation of catheptic carboxypeptidase B from T-cell activating factor derived supernatants has been described, using EACA-agarose and EACA as eluting agent.[6]

In the preparation of media equivalents for the entrapment of neonatal aortic rat smooth muscle cells, with fibrin as an alternative biopolymer to collagen, EACA has been used to inhibit fibrin degradation by the cells.[7] The derivatization of synthetic peptides with EACA to enhance their hydrophobicity and coating efficiency for an ELISA protocol has been described.[8] An *in vitro* analysis of the effects of ultrafiltration on EACA and its antifibrinolytic properties has been reported.[9]

Trace elemental analyses have been performed on the BioUltra 6-aminohexanoic acid. The Certificate of Analysis provides lot-specific results. BioUltra 6-aminohexanoic acid is for applications which require tight control of elemental content.

Preparation Instructions

This product is soluble in water (65 mg/mL).

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

References

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3. Adelman, B. *et al*., Plasminogen interactions with platelets in plasma. *Blood*, **72(5)**, 1530-1535 (1988).
4. Krishnamurti, C. *et al*., Inhibitory effects of lysine analogues on t-PA induced whole blood clot lysis. *Thromb. Res.*, **73(6)**, 419-430 (1994).
5. Humphries, J.E. *et al.*, Fibrinogenolytic and fibrinolytic activity of cell-associated plasmin. *Arterioscler. Thromb*., **13(1)**, 48-55 (1993).
6. Dessaint, J.P. *et al*., Catheptic carboxypeptidase B as a major component in "T-cell activating factor" of macrophages. *J. Immunopharmacol*., **1(3)**, 399-414 (1979).
7. Grassl, E.D. *et al*., Fibrin as an alternative biopolymer to type-I collagen for the fabrication of a media equivalent. *J. Biomed. Mater. Res*., **60(4)**, 607-612 (2002).
8. Pyun, J.C. *et al*., Modification of short peptides using ε-aminocaproic acid for improved coating efficiency in indirect enzyme-linked immunosorbent assays (ELISA). *J. Immunol. Methods*, **208(2)**, 141-149 (1997).
9. Petterson, C.M. *et al*., The effects of ultrafiltration on ε-aminocaproic acid: an *in vitro* analysis. *J. Extra Corpor. Technol.*, **34(3)**, 197-202 (2002).

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