

Specification



Benzamidine hydrochloride *BioChemica*

A1380

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|----------------------|--|
| Melting range | 80 - 85°C |
| Formula | C ₇ H ₈ N ₂ · HCl |
| M | 156.62 g/mol |
| CAS-No.: | 1670-14-0 |
| HS-No.: | 29252900 |
| EC-No.: | 216-795-4 |
| Storage: | 2-8°C |
| LGK: | 10 - 13 |
| Disposal: | 3 |
| WGK: | 1 |
| Specification | |
| Assay (titr.) | min. 99 % |
| Water (K.F.) | max. 15 % |

Literature

- (1) Mares-Guia, M. & Shaw, E. (1965) *J. Biol. Chem.* **240**, 1579-1585 Studies on the active center of trypsin.
- (2) Markwardt, F. *et al.* (1968) *Eur. J. Biochem.* **6**, 502-506 Comparative studies on the inhibition of trypsin, plasmin and thrombin by derivatives of benzylamine and benzamidine.
- (3) Ensink, J.W. *et al.* (1972) *J. Clin. Endocrinol. Metab.* **35**, 463-467 Use of benzamidine as proteolytic inhibitor in the RIA of glucagon in plasma.
- (4) Jeffcoate, S.L. & White, N. (1974) *J. Clin. Endocrinol. Metab.* **38**, 155-157 Use of benzamidine to prevent the destruction of thyrotropin-releasing hormone (TRH) by blood.

Comment

Benzamidine is an amide derivative of benzene. It is an effective, competitive inhibitor of trypsin, thrombin, acrosin and plasmin. The K_i -value for trypsin is 3.5 μ M, for plasmin at 350 μ M and for thrombin at 220 μ M (2). The working concentration in the protease inhibitor cocktails of benzamidine is 1 mM or 5 mM. A good inhibition of proteases from blood/plasma is observed at final concentrations of 50 mM. Stock solutions can be prepared as 1 M aqueous solutions (3, 4).