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Product Information

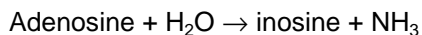
Adenosine Deaminase from bovine spleen

Product Number **A 6648**
Storage Temperature 2-8 °C

Product Description

EC Number: 3.5.4.4
CAS Number: 9026-93-1
Molecular Weight: 33 kDa¹
pI = 4.7-4.85¹
Synonyms: Adenosine aminohydrolase, ADA

Adenosine deaminase from bovine spleen is a glycoprotein containing glucosamine and galactosamine. The enzyme catalyzes the following reaction:



The following K_m values have been reported for adenosine deaminase from bovine spleen: adenosine (0.4 mM) and deoxyadenosine (0.143 mM). Adenosine deaminase from bovine spleen will not hydrolyze adenine, 3',(2')-AMP, 5'-AMP, ADP, cytosine, and guanosine. The enzyme does not require an activator, but it is inhibited by the following compounds: Cu^{2+} , SDS, p-chloromercuribenzoate, methylmercuricnitrate, L-tosylamido-2-phenylethyl chloromethyl ketone, and diisopropyl fluorophosphate.¹

Adenosine deaminase is an important enzyme associated with purine metabolism in mammalian tissue. Adenosine deaminase from human erythrocytes has been associated with severe combined immunodeficiency (SCID) syndrome in children lacking T- and B-lymphocyte function. Analogs of adenosine which can be utilized as chemotherapeutics such as formycin, cordycepin, and arabinosyl adenine are degraded by adenosine deaminase to inactive forms.²

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

References

1. Pfrogner, N., Adenosine deaminase from calf spleen. II. Chemical and enzymological properties. *Arch. Biochem. Biophys.*, **19(1)**, 147-154 (1967).
2. Agarwal, R. P., and Parks, R. E. Jr., Adenosine deaminase from human erythrocytes. *Meth. Enzymol.*, **51**, 502-507 (1978).

TMG/RXR 11/02

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