



3050 Spruce Street  
Saint Louis, Missouri 63103 USA  
Telephone 800-325-5832 • (314) 771-5765  
Fax (314) 286-7828  
email: techserv@sial.com  
sigma-aldrich.com

## Product Information

### Adenosine Deaminase from bovine spleen

Product Number **A 5168**  
Storage Temperature 2-8 °C

#### Product Description

Enzyme Commission (EC) Number: 3.5.4.4  
CAS Number: 9026-93-1  
Molecular weight: 32.5-33 kDa<sup>1</sup>  
pI: 4.85

Adenosine deaminase is a purine catabolic enzyme which catalyzes the deamination of adenosine and 2'-deoxyadenosine with approximately equal specificity. It is ubiquitous in mammalian tissue, and deficiency in adenosine deaminase has been associated with severe combined immunodeficiency disease.<sup>2</sup> The enzyme has been tested as a target for gene therapy treatments of this disease.<sup>3</sup>

#### Precautions and Disclaimer

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

#### Preparation Instructions

The enzyme preparation may be diluted in water or buffer to a protein concentration of 1 mg/ml, producing a clear, colorless solution.

#### Storage/Stability

Solutions of this enzyme are stable in the pH range of 4-10.

#### References

1. Pfrogner, N., Adenosine deaminase from calf spleen. II. Chemical and enzymological properties. *Arch. Biochem. Biophys.*, **119(1)**, 147-154 (1967).
2. Trotta, P., et al., A normal level of adenosine deaminase activity in the red cell lysates of carriers and patients with severe combined immunodeficiency disease. *Proc. Natl. Acad. Sci. USA*, **73(1)**, 104-108 (1976).
3. Blaese, R., et al., T lymphocyte-directed gene therapy for ADA-SCID: initial trial results after 4 years. *Science*, **270**, 475-480 (1995).

JLH/NSB 1/03

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.