



# SZABO SCANDIC

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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# adenosine deaminase (h): 293T Lysate: sc-159789

## BACKGROUND

Adenosine deaminase is an enzyme that is present in most tissues. It exists predominantly as a monomer, although in some tissues it is associated with adenosine deaminase-binding protein. Adenosine deaminase degrades extracellular adenosine, which is toxic for lymphocytes. Adenosine deaminase also effects co-stimulatory signals in T cells via interactions with CD26. Deficiency of adenosine deaminase has been shown to lead to immunodeficiency diseases such as SCID (severe combined immunodeficiency disease) and has been associated with hereditary hemolytic anemia, a disease in which adenosine deaminase levels are elevated fifty to seventy fold.

## REFERENCES

1. Daddona, P.E. and Kelly, W.N. 1980. Analysis of normal and mutant forms of human adenosine deaminase—a review. *Mol. Cell. Biochem.* 29: 91-101.
2. Miwa, S. and Fujii, H. 1996. Molecular basis of erythroenzymopathies associated with hereditary hemolytic anemia: tabulation of mutant enzymes. *Am. J. Hematol.* 51: 122-132.
3. Resta, R. and Thompson, L.F. 1997. SCID: the role of adenosine deaminase deficiency. *Immunol. Today* 18: 371-374.
4. Dong, R.P., Tachibana, K., Hegen, M., Munakata, Y., Cho, D., Scholssman, S.F. and Morimoto, C. 1997. Determination of adenosine deaminase binding domain on CD26 and its immunoregulatory effect on T cell activation. *J. Immunol.* 259: 6070-6076.
5. Franco, R., Valenzuela, A., Lluís, C. and Blanco, J. 1998. Enzymatic and extra-enzymatic role of ectoadenosine deaminase in lymphocytes. *Immunol. Rev.* 161: 27-42.
6. Morimoto, C. and Schlossman, S.F. 1998. The structure and function of CD26 in the T cell immune response. *Immunol. Rev.* 161: 55-70.
7. Young, H.W., Molina, J.G., Dimina, D., Zhong, H., Jacobson, M., Chan, L.N., Chan, T.S., Lee, J.J. and Blackburn, M.R. 2004. A3 adenosine receptor signaling contributes to airway inflammation and mucus production in adenosine deaminase-deficient mice. *J. Immunol.* 173: 1380-1389.

## CHROMOSOMAL LOCATION

Genetic locus: ADA (human) mapping to 20q13.12.

## PRODUCT

adenosine deaminase (h): 293T Lysate represents a lysate of human adenosine deaminase transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

adenosine deaminase (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive adenosine deaminase antibodies. Recommended use: 10-20 µl per lane.

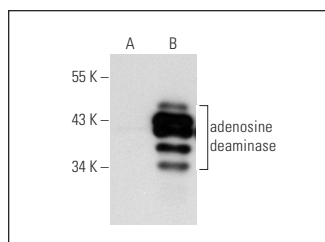
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

adenosine deaminase (D-4): sc-28346 is recommended as a positive control antibody for Western Blot analysis of enhanced human adenosine deaminase expression in adenosine deaminase transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



adenosine deaminase (D-4): sc-28346. Western blot analysis of adenosine deaminase expression in non-transfected: sc-117752 (A) and human adenosine deaminase transfected: sc-159789 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.