SANTA CRUZ BIOTECHNOLOGY, INC.

adenosine deaminase (h): 293 Lysate: sc-114383

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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., Lluis, C. and Blanco, J. 1998. Enzymatic and extraenzymatic 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.

CHROMOSOMAL LOCATION

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

PRODUCT

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

APPLICATIONS

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

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.