Advanced Targeting Systems

1930 KELLOGG AVENUE
CARLSBAD, CA 92008 USA
01.858.642.1988 • WWW.ATSBIO.COM

Anti-CD25-SAP mouse

TARGETED SAP CONJUGATE

a tool for eliminating cells that express Interleukin-2 (IL-2) receptor in mouse; targeted via a monoclonal antibody to mouse CD25 (Tac, IL-2 receptor), eliminated via saporin

Catalog Number: IT-29
Quantity: 25 micrograms, 100 micrograms, 250 micrograms, 1 milligram
Format: PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), no preservative. Sterile-filtered.
Host: Rat

Background: Targeted SAP conjugates are powerful and specific lesioning agents used in the technique known as Molecular Surgery. The ribosome-inactivating protein, saporin (from the seeds of the plant, *Saponaria officinalis*) is bound to a targeting agent (anything that is recognized on the cell surface and internalized). The targeted conjugate is administered to cells (*in vitro* or *in vivo*). The targeting agent seeks out and binds to its target on the cell surface. The conjugate is internalized, saporin breaks away from the targeting agent, and inactivates the ribosomes which causes protein inhibition and, ultimately, cell death. Cells that do not have the cell surface marker are not affected.
Interleukin-2 receptors are located on the surface of T-cells and function in clonal expansion of the activated T-cell. The monoclonal CD-25 antibody inhibits the proliferation of Interleukin-2 (CD25)-dependent murine cell lines. It blocks the murine T-cell receptor for IL-2 by binding to the alpha-chain of IL-2 receptors. This antibody has also been shown to inhibit IL-2 binding to both low and high affinity IL-2 receptors. Anti-CD25-SAP specifically eliminates cells expressing mouse CD25 and is potently cytotoxic to mouse activated T-cells. Anti-CD25 immunotoxins have been shown to remove activated T lymphocytes in culture, and can be used to understand the role of this population in its various processes in the immune system. It has also been suggested for clinical use in the treatment of T-cell leukemias and lymphomas.

Specificity & Preparation: This targeted toxin recognizes cells that express the murine interleukin-2 (CD25) receptor. Anti-CD25-SAP is a chemical conjugate of a monoclonal antibody to mouse CD25 (Tac, IL-2 receptor) and the ribosome-inactivating protein, saporin.

Usage: Anti-CD25-SAP specifically eliminates cells that express the murine Interleukin-2 (IL-2) receptor. It is useful in retrograde transport (see Wiley *et al*, 1989). **There may be lot-to-lot variation in material; working dilutions must be determined by end user. If this is a new lot, you must assess the proper working dilution before beginning a full experimental protocol.**

Storage: Gently spin down material 5-10 seconds in a microfuge before use. Store the material in undiluted aliquots at –20°C for 1-2 months. For longer term storage store the material at –80°C. Material should be aliquoted to a convenient volume and quantity to avoid repeated freezing and thawing that can damage the protein content. Under these conditions, the material has a very stable shelf-life. Thawing should be done at room temperature or on ice. The thawed solution should remain on ice until use. The material can be handled safely using normal laboratory precautions.
Do not use a reducing agent (such as dithiothreitol, beta-mercaptoethanol or ascorbic acid) with this material. It will inactivate the toxin.
For disposal: autoclave, or expose to 0.2 M NaOH, materials that come into contact with the toxin.

Advanced Targeting Systems

1930 KELLOGG AVENUE
CARLSBAD, CA 92008 USA
01.858.642.1988 • WWW.ATSBIO.COM

Anti-CD25-SAP mouse
TARGETED SAP CONJUGATE

Selected References:

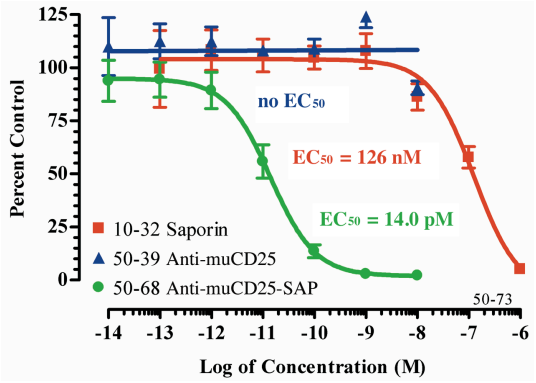
1. Wiley RG, Stirpe F, Thorpe P, Oeltmann TN (1989) Neuronotoxic effects of monoclonal anti-Thy 1 antibody (OX7) coupled to the ribosome inactivating protein, saporin, as studied by suicide transport experiments in the rat. *Brain Res* 505:44-54.

Control(s): Rat IgG-SAP

Safety:
Good laboratory technique must be employed for safe handling of this product. This requires observation of the following practices:

1. Wear appropriate laboratory attire, including lab coat, gloves and safety glasses.
2. Do not pipet by mouth, inhale, ingest or allow product to come into contact with open wounds. Wash thoroughly any part of the body which comes into contact with the product.
3. Avoid accidental autoinjection by exercising extreme care when handling in conjunction with any injection device.
4. This product is intended for research use by qualified personnel only. It is not intended for use in humans or as a diagnostic agent. Advanced Targeting Systems is not liable for any damages resulting from the misuse or handling of this product.

To view protocol(s) for this and other products please visit: www.ATSbio.com/library/protocols



HT-2 cells were plated at 2000 cells per well and incubated overnight. Reagents were added as indicated, and incubated for 72 hrs. Percent of live cells was evaluated by developing with a MTS/PMS mixture, and comparison to cells in wells that received no treatment. Data was collected on a Molecular Devices Spectramax plate reader with Softmax software, and evaluated with Prism software.

For research use only, not for use as a diagnostic.