

Blank-Streptavidin-SAP
NON-TARGETED SAPORIN CONTROL MOLECULE

targets no known cells; used as a control with streptavidin-saporin conjugates

Catalog Number: IT-27B
Quantity: 25 micrograms, 100 micrograms, 250 micrograms
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.

Background:

Controls are a vital part of the scientific procedure; without them it is difficult to isolate the specific effects from the non-specific or artifactual. This control molecule is the same molecular weight, consists of similar, comparable materials and is synthesized with the same protocols as the targeted conjugates. The difference is the cell-specific targeting agents are replaced with "blanks," antibodies or peptides that have no specificity, and no ability to target cells. In short, they are the perfect control molecules for behavioral experiments with Advanced Targeting Systems' targeted conjugates.

Blank-Strep-SAP is the perfect control for use with peptide conjugates utilizing biotin linkage to Streptavidin-ZAP (IT-27). It consists of a non-targeted peptide that has been biotinylated and mixed with Streptavidin-ZAP. The sequence of the non-targeted peptide of this molecule is an 11-amino acid, randomly mixed version of the sequence of melanocyte-stimulating hormone, with amino acid residues that are typical of peptides that bind to G-protein-coupled receptors. Examination of the peptide sequence using NCBI/BLAST reveals no homologous sequences. Thus, Blank-Strep-SAP can be used as control for any non-specific effects of the toxin and provides a definitive baseline for determining the effects of a targeted peptide conjugate.

Specificity and Preparation:

This control conjugate has no known specificity. Blank-Streptavidin-SAP (Blank-Strep-SAP) is a chemical conjugate between a biotin-tagged non-targeted peptide and the ribosome-inactivating protein, saporin, attached to streptavidin.

Usage and Storage:

Blank-Strep-SAP serves as a control for peptide-targeted toxins utilizing biotin-streptavidin linkage (Nppb-SAP). **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.**

Gently spin down material before use; 5-10 seconds in a microfuge should be adequate. The material should be stored at -20°C for one year. Avoid repeated freezing and thawing.

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.

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/support/protocols



6352 CORTE DEL ABETO, STE B
CARLSBAD, CA 92011 USA
01.858.642.1988 • WWW.ATSBIO.COM

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