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**192-IgG-SAP (192-Saporin)**  
TARGETED SAP CONJUGATE

*[antibody to rat p75<sup>NTR</sup>]-saporin  
targets rat p75<sup>NTR</sup>*

**Catalog Number:** IT-01  
**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.  
**Host:** Mouse

**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.

**Specificity and Preparation:**

This targeted toxin (molecular weight 210 kDa) recognizes p75<sup>NTR</sup>-expressing cells in rat. 192-IgG-SAP is a chemical conjugate of the mouse monoclonal antibody to rat p75<sup>NTR</sup> and the ribosome-inactivating protein, saporin. This product is routinely tested by cytotoxicity assay.

**Usage and Storage:**

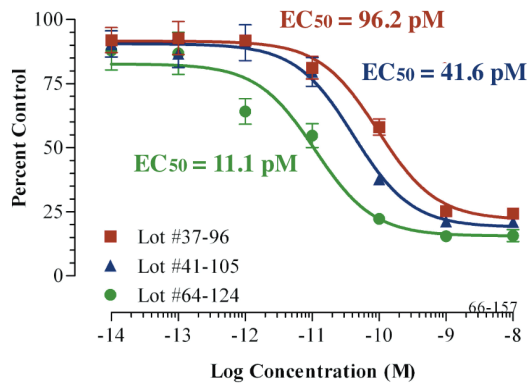
192-IgG-SAP specifically eliminates cells expressing p75<sup>NTR</sup>, also known as the low affinity nerve growth factor (NGF) receptor. **There may be lot-to-lot variation in material; working dilutions must be determined by end user. If this is a new lot, you must assess the proper working dilution before beginning a full experimental protocol.**

Centrifuge material at low speed in microfuge to ensure all of solution is at bottom of tube. Vortex gently. 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.

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7H6 cells were plated at 1000 cells/well in a 96-well plate and incubated overnight. 192-IgG-SAP was added in 10  $\mu$ l volumes and the plates were incubated for 72 hours. The plates were developed with PMS/MTS for 0.5-1 hour, then read at 490 nm in a plate reader. Data analysis was done by PRISM (GraphPad, San Diego).

**References:**

1. Birthelmer A, Dommes E, Jeltsch H, Cassel JC, Jackisch R (2002) Septal grafts and evoked acetylcholine release in the rat hippocampus after 192 IgG-saporin lesions. *Neuroreport* 13(7):973-976.
2. Ferencz I, Leanza G, Nonobashvili A, Kokaia Z, Kokaia M, Lindvall O (2001) Septal cholinergic neurons suppress seizure development in hippocampal kindling in rats: comparison with noradrenergic neurons. *Neurosci* 102(4):819-832.
3. Paqueron X, Li X, Eisenach JC (2001) p75-expressing elements are necessary for anti-allodynic effects of spinal clonidine and neostigmine. *Neurosci* 102(3):681-686.
4. Milner TA, Hammel JR, Ghorbani TT, Wiley RG, Pierce JP (1999) Septal cholinergic deafferentation of the dentate gyrus results in a loss of a subset of neuropeptide Y somata and an increase in synaptic area on remaining neuropeptide Y dendrites. *Brain Res* 831:322-336.
5. Pizzo DP, Waite JJ, Thal LJ, Winkler J (1999) Intraparenchymal infusions of 192 IgG-saporin: development of a method for selective and discrete lesioning of cholinergic basal forebrain nuclei. *J Neurosci Methods* 91:9-19.

**Available Control(s):**

Saporin, Mouse 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.

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