Advanced Targeting Systems

6352 CORTE DEL ABETO, STE B
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01.858.642.1988 • WWW.ATSBIO.COM

HRP-labeled Goat Antibody to Saporin

GOAT POLYCLONAL

Catalog Number: AB-15AP-HRP
Quantity: 50 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.
Host: Goat
Isotype: IgG
Immunogen: Saporin

Background: Saporin is obtained from the seeds of the Soapwort plant (*Saponaria officinalis*), a plant that grows wildly in Britain and other parts of Europe. Saporin is a plant enzyme with N-glycosidase activity that depurinates a specific nucleotide in the ribosomal RNA 28S, thus irreversibly blocking protein synthesis. It belongs to the well-characterized family of ribosome-inactivating proteins (RIPs). There are two types of RIPs: type I, which are much less cytotoxic due to the lack of the B chain and type II, which are distinguished from type I RIPs by the presence of the B chain and their ability to enter cells on their own. However, type I RIPs can still be internalized by fluid-phase endocytosis. Upon internalization, the ribosomes are inactivated, resulting in cell death.
HRP-labeled Anti-SAP can be used to verify binding specificity of a targeted toxin to a cell line expressing the target molecule. By first binding the targeted toxin to protein extract or plate-bound antigen, then binding HRP-labeled Anti-SAP to the targeted toxin, specificity can be confirmed through the use of competing molecules or a control cell line.

Specificity & Preparation: This antibody recognizes saporin. Saporin was used as the immunogen. The antibody was affinity-purified against saporin attached to a CnBr-Sepharose support column. The affinity-purified polyclonal antiserum was conjugated to horseradish peroxidase (HRP) and dialyzed against PBS. The conjugated antibody is routinely tested by western blot.

Usage: Applications include immunohistochemistry (frozen, fixed sections; 1:1000 or 1:350)[1,2] and immunoblotting (1 μg/ml-10 μg/ml, ATS in-house).

Storage: Store the antibody at -20°C in undiluted aliquots for up to one year. Avoid repeated freezing and thawing. Gently spin down material 5-10 seconds in a microfuge before use. For longer-term storage, add an equal volume of glycerol for a final concentration of 50%, and store as a liquid at -20C.

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Selected References:

1. Vulchanova L, Olson TH, Stone LS, Riedl MS, Elde R, Honda CN (2001) Cytotoxic targeting of isolectin IB4-binding sensory neurons. Neurosci 108(1):143-155.
2. Mantyh PW, Rogers SD, Honore P, Allen BJ, Ghilardi JR, Li J, Daughters RS, Lappi DA, Wiley RG, Simone DA (1997) Inhibition of hyperalgesia by ablation of lamina I spinal neurons expressing the substance P receptor. Science 278:275-279.

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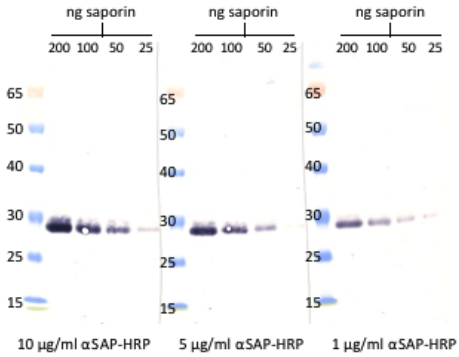

Saporin (200, 100, 50, and 25 ng) was run on a 10% SDS-PAGE gel and transferred to a PVDF membrane. The blot was blocked with 4% NFM/TBS, then incubated overnight with 1 µg/ml, 5 µg/ml, or 10 µg/ml anti-SAP-HRP (lot #92-18). The blot was washed and developed with 4-chloro-1-naphthol and hydrogen peroxide.