Advanced Targeting Systems

6352 CORTE DEL ABETO, STE B
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HRP-labeled Goat Antibody to Saporin

GOAT POLYCLONAL

Catalog Number: AB-15HRP
Quantity: 200 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 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 material at 4°C for one month. For longer-term storage, add one of the following: bovine serum albumin at 10 mg/ml or an equal volume of glycerol. Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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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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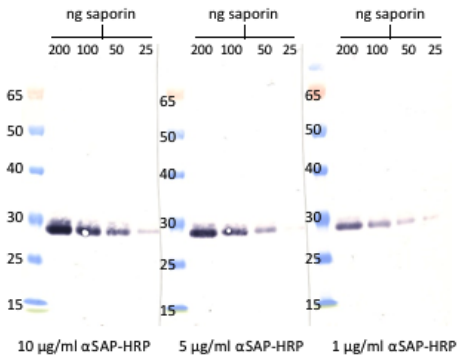

Saporin (200, 100, 50, and 25 ng) was run on a 10% SDS-PAGE gel and transferred to a PVDF membrane. The blot was blocked with 4% NFM/TBS, then incubated overnight with 1 µg/ml, 5 µg/ml, or 10 µg/ml anti-SAP-HRP (lot #92-18). The blot was washed and developed with 4-chloro-1-naphthol and hydrogen peroxide.