ADVANCED TARGETING SYSTEMS

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Alexa488-labeled Antibody to Saporin, Affinity-Purified
CHICKEN POLYCLONAL

Catalog Number: FL-17AP
Quantity: 50 micrograms
Format: 50% PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), 50% glycerol; no preservative.
Host: Chicken
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. In the case of saporin, it was reported that saporin first binds to the alpha2-macroglobulin receptor on human cells and is then internalized to the cytosol. Upon internalization, the ribosomes are inactivated, resulting in cell death.

Specificity and Preparation:
This antibody recognizes native and recombinant saporin. It was developed in chicken using saporin and was purified from chicken egg yolk. It has been conjugated to the fluorescent dye Alexa488. The antibody is routinely tested by western blot.

Usage and Storage:
Applications include immunoblotting (ATS in-house; 0.5 µg/ml), ELISA (ATS in-house; 1 µg/well), and flow cytometry[1] (1:50). Goat Anti-Saporin is suggested as positive control.
Gently spin down material before use; 5-10 seconds in a microfuge should be adequate. The material can be handled safely using normal laboratory precautions. See Lot Number for lot-specific storage instructions.

References:
1. Gerashchenko D, Kohls MD, Greco M, Waleh NS, Salin-Pascual R, Kilduff TS, Lappi DA, Shiromani PJ (2001) Hypocretin-2-saporin lesions of the lateral hypothalamus produce narcoleptic-like sleep behavior in the rat. *J Neurosci* 21(18):7273-7283.

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