

Anti-ANT Monoclonal Antibody

CATALOG #:	455800
COMPONENTS:	100 µg monoclonal antibody 100mL Incubation Solution
APPLICATIONS:	Western blotting (special protocol is needed) and Immunocytochemistry (heat-induced antigen-retrieval improves signal).
CLONE ID OF MONOCLONAL ANTIBODY (mAb):	5F51BB5AG7
SPECIES CROSS-REACTIVITY:	human, rat, bovine and <i>C. elegans</i>
HOST SPECIES AND ISOTYPE:	Mouse IgG1, k
IMMUNOGEN:	Recombinant Human ANT
CONCENTRATION:	1 mg/mL in Hepes-Buffered Saline (HBS) with 0.02% sodium azide as a preservative.
SUGGESTED WORKING CONCENTRATION:	1 µg/mL for Western blotting, 10 µg/mL for Immunocytochemistry
mAb PURITY:	Near homogeneity as judged by SDS-PAGE. The antibody was produced <i>in vitro</i> using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
STORAGE CONDITIONS:	Store at 4°C. Do not freeze.
COUNTRY OF ORIGIN:	USA
ADDITIONAL INFO:	Since milk interferes with antibody binding during Western blotting, this product is accompanied by the necessary membrane incubation solution.

BACKGROUND:

ANT is a reversible transporter of ATP and ADP. During oxidative phosphorylation (OXPHOS) the protein exchanges ATP out for ADP in, however, in the absence of OXPHOS ANT works in reverse to maintain mitochondrial membrane potential. A subset of patients with heart related diseases have been shown to harbor mutations in the ANT gene or to develop an autoimmune reaction against the protein.

There are a number of proteins found in mitochondria that, under circumstances favoring apoptosis, coalesce to form the so-called permeability transition pore.

The proteins identified as a part of the PTP include cytosolic hexokinase, outer membrane porin (also called the voltage dependent anion channel or VDAC), adenylate cyclase in the intermembrane space, the adenine nucleotide transporter (ANT) and the peripheral benzodiazepine receptor protein of the inner membrane along with cyclophilin D of the matrix space. Hexokinase, porin and ANT all occur as isoforms and it remains to be determined whether there is specificity of these different forms for the PTP.

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Related Products

<i>Product</i>	<i>Conjugate</i>	<i>Cat. No.</i>
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary Antibody Conjugates

<i>Conjugate</i>	<i>Goat anti-rabbit IgG (H+L)</i>	<i>Goat anti-mouse IgG (H+L)</i>	<i>Ex/Em*</i>	<i>Fluorescence similar to--</i>
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

*Excitation/emission (nm); **Not applicable

For additional secondary antibody conjugates, visit www.invitrogen.com/antibodies

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