

TECHNICAL DATA SHEET**Catalog # MSA02****ANT monoclonal antibody**

Rev.2

LOT #:	Incubation Sol'n Lot#:
COMPONENTS:	100 µg monoclonal antibody
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, mouse, bovine and <i>C. elegans</i>
HOST SPECIES AND ISOTYPE:	Mouse IgG1, k
IMMUNOGEN:	Recombinant Human ANT-1
CONCENTRATION:	1.0 mg/mL in Hepes-Buffered Saline (HBS) with 0.02% 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 with MSA02, 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.

Note: This product is for research purposes only. It is not to be used in humans or for diagnostic purposes.

WARRANTY – MitoSciences Inc warrants that products will perform as indicated in the published Technical Data Sheet for 6 months from date of purchase when stored according to specifications and when used consistent with recommended protocols. If you experience results which materially differ from those described, send evidence of the non-performing product for replacement of the original product purchased or a credit toward any other of the company's products or services.