Order: 800-910-6486
sales@mitosciences.com
Web: www.mitosciences.com
Support: support@mitosciences.com

TECHNICAL DATA SHEET

Catalog # MS107

Complex I subunit NDUFB4 monoclonal antibody

Rev.1

LOT #:	
COMPONENTS:	100 µg monoclonal antibody
APPLICATIONS:	Western blotting, Immunocytochemistry (heat-induced antigen-retrieval improves signal), Flow Cytometry
CLONE ID OF MONOCLONAL ANTIBODY (mAb):	17G3D9E12
SPECIES CROSS-REACTIVITY:	human, bovine, rat (weak)
HOST SPECIES AND ISOTYPE:	Mouse IgG1, k
IMMUNOGEN:	Bovine Complex I
CONCENTRATION:	1 mg/mL in Hepes-Buffered Saline (HBS) with 0.02% azide as a preservative.
SUGGESTED WORKING CONCENTRATION:	0.5 µg/mL for Western blotting 5-15 µg/mL for Immunocytochemistry 1 µg/mL for Flow Cytometry
mAb PURITY:	Near homogeneity as judged by SDS-PAGE. The antibody was produced *in vitro* using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
STORAGE CONDITIONS:	Store at 4℃. Do not freeze.
COUNTRY OF ORIGIN:	USA

BACKGROUND:

Complex I, or NADH ubiquinone oxidoreductase, is a large protein complex of 950,000 Da molecular weight made up by 45 to 46 different subunits. A total of seven of the subunits of the complex are encoded by mitochondrial DNA, while the remainder subunits are nuclear encoded, which are translated in the cytosol and translocated into the organelle for assembly at the inner membrane.

The enzyme complex catalyses electron entry from NADH via a flavin (FMN) and several non-heme iron centers. Complex I is sensitive to a wide range of inhibitors, many of which are pesticides or other common environmental toxins, such as rotenone. Complex I dysfunction is a common cause of genetic OXPHOS defects. Altered functioning of this complex is also thought to contribute to several neurological disorders including Parkinson's disease and schizophrenia. Also, there is evidence of Complex I involvement in diabetes.

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

WARRANTY – MitoSciences Inc warranties that products will perform as indicated in the published Product Information Sheet and Product Technical Specifications 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.

MitoSciences Inc., 1850 Millrace Drive, Suite 3A, Eugene, OR 97403, 541-284-1800