ፅ invitrogen

MOLECULAR PROBES°

ATP synthase (Complex V) subunit alpha monoclonal antibody

Catalog no. 459240

(See product label for lot information)

Product Description

100 µg monoclonal antibody

| Clone/PAD: | 7H10BD4F9 |
|------------|----------------|
| Isotype: | Mouse IgG2b, k |
| Qty: | 100 µg |

Concentration

1 mg/mL in Hepes-Buffered Saline (HBS) with 0.02% Sodium Azide as a preservative.

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.

Validation

See <u>www.invitrogen.com/antibodies</u> for protocols Validated for use in Western blotting and Immunocytochemistry .

1-2 µg/mL for Western blotting 5 µg/mL for Immunocytochemistry

Other applications are not tested.

Reactivity

This product had been directly tested for reactivity with human, bovine, mouse, rat, zebrafish.

Immunogen Bovine Complex V

Storage Store at 4°C. Do not freeze.

Expiration Date See the product label.

Background

Complex V, also called F1F0ATPase or ATP synthase, is responsible for ATP production in oxidative phosphorylation and can work in reverse as a proton pumping ATPase. The enzyme was thought to be localized exclusively to mitochondria. However, it has recently been identified on the plasma membrane of several cell types including hepatocytes where it functions as the HDL receptor, on endothelial cells where it may act as the angiostatin receptor, and on the surface of cancer cells.

The enzyme in mammals is composed of 17 subunits, five of which make up the easily detached F1. The remainder subunits are components of two stalk domains and the proton pumping F0 part of the machinery. Two of the subunits of the F0 part are encoded on mitochondrial DNA while the other subunits are nuclear encoded. Mutations in the mitochondrial-encoded subunits of ATP synthase (Complex V) cause OXPHOS disease.

| Symbol | Description | Symbol | Description |
|----------------------|---|-------------|--------------------------------------|
| REF | Catalogue Number | LOT | Batch code |
| RUO | Research Use Only | IVD | In vitro diagnostic medical device |
| X | Use by | ł | Temperature limitation |
| *** | Manufacturer | EC REP | European Community authorised repres |
| [-] | Without, does not contain | [+] | With, contains |
| ectile Come Light | Protect from light | \triangle | Consult accompanying documents |
| []i | Directs the user to consult instructions for use (IFU), accompanying the product. | | |

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