Anti-Complex V alpha-Subunit Monoclonal Antibody

CATALOG #:	439800
COMPONENTS:	100 µg monoclonal antibody
APPLICATIONS:	Western blotting and Immunocytochemistry
CLONE ID OF MONOCLONAL ANTIBODY (mAb):	15H4C4
SPECIES CROSS-REACTIVITY:	human, bovine, mouse, rat, *Drosophila melanogaster*, *C. elegans,* and oyster
HOST SPECIES AND ISOTYPE:	Mouse IgG2b, k
IMMUNOGEN:	Bovine Complex V
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 and 1-2 µg/mL for Immunocytochemistry
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°C. Do not freeze.
COUNTRY OF ORIGIN:	USA

BACKGROUND:

Complex V, also called F_1F_0ATPase 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 F_1. The remainder subunits are components of two stalk domains and the proton pumping F_0 part of the machinery. Two of the subunits of the F_0 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

Related Products

Product	*Conjugate*	*Cat. No.*
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

Conjugate	*Goat anti-rabbit IgG (H+L)*	*Goat anti-mouse IgG (H+L)*	*Ex/Em**	*Fluorescence similar to--*
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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