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Complex IV subunit II monoclonal antibody

CATALOG #:	A6404
COMPONENTS:	100 µg monoclonal antibody
APPLICATIONS:	Western blotting and Immunocytochemistry
CLONE ID OF MONOCLONAL ANTIBODY (mAb):	12C4F12
SPECIES CROSS-REACTIVITY:	human
HOST SPECIES AND ISOTYPE:	Mouse IgG2a, k
IMMUNOGEN:	Human Complex IV subunit II, from SDS-PAGE
CONCENTRATION:	1 mg/mL in Hepes-Buffered Saline (HBS) with 0.02% azide as a preservative
SUGGESTED WORKING CONCENTRATION:	1 µg/mL for Western blotting and 5–10 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.

BACKGROUND:
Cytochrome c oxidase is the fourth complex in the respiratory chain and is responsible for catalyzing the conversion of O_2 to H_2O. Subunit 2 of the cytochrome c oxidase complex combines with two other subunits (1 and 3) to form a core protein structure that performs many functions of the enzyme. The metallic copper center of this subunit transfers electrons to the heme center of subunit 1, which results in the movement of electrons from cytochrome c to the heme A3 and copper B metallic center of complex IV.
Defects in subunit 2 of cytochrome c oxidase can result in COX deficiency, which causes a wide range of symptoms from local myopathy to multiple system pathologies that begin between infancy and adulthood. Abnormalities in this subunit are also associated with tumor development.

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