

**TECHNICAL DATA SHEET****Catalog # MS405****Complex IV subunit II 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):** 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  
5-10 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°C. Do not freeze.**COUNTRY OF ORIGIN:** USA**BACKGROUND:**

Complex IV, also called cytochrome *c* oxidoreductase or cytochrome *c* oxidase, is a complex of 13 different subunits, three of which (I, II and III) are encoded on mitochondrial DNA and the remainder in the nuclear DNA. The complex contains two heme groups (*a* and *a*<sub>3</sub>) and two copper atoms as prosthetic groups. Genetic alterations of this enzyme complex are a common cause of OXPHOS diseases and the enzyme is altered in patients with Alzheimer's disease. Also, there are reports of reduced amounts of this complex in hypoxic cancer cells.

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

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