

**TECHNICAL DATA SHEET****Catalog # MS408****Complex IV subunit IV monoclonal antibody**

Rev.2

LOT #:

<b>COMPONENTS:</b>	100 µg monoclonal antibody
<b>APPLICATIONS:</b>	Western blotting, Immunohistochemistry, Immunocytochemistry (heat-induced antigen-retrieval improves signal), Flow Cytometry
<b>CLONE ID OF MONOCLONAL ANTIBODY (mAb):</b>	10G8D12C12
<b>SPECIES CROSS-REACTIVITY:</b>	human, bovine
<b>HOST SPECIES AND ISOTYPE:</b>	Mouse IgG2a, k
<b>IMMUNOGEN:</b>	Bovine Complex IV subunit IV
<b>CONCENTRATION:</b>	1 mg/mL in HEPES-Buffered Saline (HBS) with 0.02% azide as a preservative.
<b>SUGGESTED WORKING CONCENTRATION:</b>	1 µg/mL for Western blotting 5 µg/mL for Immunocytochemistry 1 µg/mL for Flow Cytometry
<b>mAb PURITY:</b>	Near homogeneity as judged by SDS-PAGE. The antibody was produced <i>in vitro</i> using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
<b>STORAGE CONDITIONS:</b>	Store at 4°C. Do not freeze.
<b>COUNTRY OF ORIGIN:</b>	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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