

**TECHNICAL DATA SHEET****Catalog # MS403****Complex IV subunit SURF1 monoclonal antibody**

Rev.1

**LOT #:****COMPONENTS:** 100 µg monoclonal antibody**APPLICATIONS:** Western blotting (Recommended for cultured cells)**CLONE ID OF MONOCLONAL ANTIBODY (mAb):** 21H2BG4**SPECIES CROSS-REACTIVITY:** human**HOST SPECIES AND ISOTYPE:** Mouse IgG1, k**IMMUNOGEN:** Recombinant human Surf-1**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**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**ADDITIONAL INFO:** The levels of SURF1 in cells and tissues are always low and in some cases negligible. The protein is easily detected in cells rapidly dividing their mitochondria and has the highest levels in cells impaired in COX assembly. The levels are lowest in tissues such as heart and liver. In these latter tissues the levels are so low that so much tissue material must be used that the specificity is not as good as in cells.**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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