

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse                                                                                                                                                                                                                                                                 |
| <b>Specificity</b>        | Detects human COX4-I2 in direct ELISAs. In Western blots, 100% cross-reactivity with recombinant human (rh) COX4-I1 and no cross-reactivity with rhCOX-1 or rhCOX-2 is observed.                                                                                            |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 673803                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | E.coli-derived recombinant human COX4-I2<br>Asn39-Lys171<br>Accession # Q96KJ9                                                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

COX4-I2 (Cytochrome c oxidase subunit 4) is a 21-22 kDa member of the Cytochrome c oxidase IV family of proteins and is predominantly expressed in lung. It is a component of COX, an inner mitochondrial membrane multimeric dimer that catalyzes the transfer of electrons from Cytochrome c to dioxygen. COX4-I2 is induced following blockade of mitochondrial respiration, leading to increased production of reactive oxygen species and necrosis. The ubiquitously expressed COX4-I1 is the product of a different gene and shares only 50% aa identity with COX4-I2. Within aa 39-171 (the oxidase domain), human COX4-I2 shares 84% and 81% aa sequence identity with mouse and rat COX4-I2, respectively.

## PRODUCT SPECIFIC NOTICES

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