COX IV (4D11-B3-E8) Mouse mAb

Applications: WB, IP, IHC-P, IF-IC
Reactivity: H M R Mk
Sensitivity: Endogenous
MW (kDa): 17
Source/Isotype: Mouse IgG1
UniProt ID: #P13073
Entrez-Gene Id: 1327

Product Usage Information

<table>
<thead>
<tr>
<th>Application</th>
<th>Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blotting</td>
<td>1:1000</td>
</tr>
<tr>
<td>Immunoprecipitation</td>
<td>1:100</td>
</tr>
<tr>
<td>Immunohistochemistry (Paraffin)</td>
<td>1:50</td>
</tr>
<tr>
<td>Immunofluorescence (Immunocytochemistry)</td>
<td>1:200</td>
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</tbody>
</table>

Storage
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity
COX IV (4D11-B3-E8) Mouse mAb recognizes endogenous levels of total COX IV protein.

Source / Purification
Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human COX IV protein.

Background
Cytochrome c oxidase (COX) is a hetero-oligomeric enzyme consisting of 13 subunits localized to the inner mitochondrial membrane (1-3). It is the terminal enzyme complex in the respiratory chain, catalyzing the reduction of molecular oxygen to water coupled to the translocation of protons across the mitochondrial inner membrane to drive ATP synthesis. The 3 largest subunits forming the catalytic core are encoded by mitochondrial DNA, while the other smaller subunits, including COX IV, are nuclear-encoded. Research studies have shown that deficiency in COX activity correlates with a number of human diseases (4). The COX IV antibody can be used effectively as a mitochondrial loading control in cell-based research assays.

Background References

Species Reactivity
Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer
IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key
WB: Western Blotting
IP: Immunoprecipitation
IHC-P: Immunohistochemistry (Paraffin)
IF-IC: Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

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