10320 Camino Santa Fe, Suite G
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Phospho-Ser58 COXIV Antibody

Affinity purified rabbit polyclonal antibody

Catalog # AN1212

Specification

Phospho-Ser58 COXIV Antibody - Product Information

Application	**WB**
Primary Accession	P19783
Reactivity	**Mouse, Rat**
Host	**Rabbit**
Clonality	**polyclonal**
Calculated MW	**17 KDa**

Phospho-Ser58 COXIV Antibody - Additional Information

Gene ID	**12857**
Gene Name	**COX4i1**

Other Names

Cytochrome c oxidase subunit 4 isoform 1, mitochondrial, Cytochrome c oxidase polypeptide IV, Cytochrome c oxidase subunit IV isoform 1, COX IV-1, Cox4i1, Cox4, Cox4a

Target/Specificity

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser58 conjugated to KLH.

Dilution

WB~~ 1:1000

Format

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Antibody Specificity

Specific for the ~17k COXIV-1 protein phosphorylated at Ser58. Immunolabeling is blocked by the phospho-peptide used as antigen but not by the corresponding dephospho-peptide.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-Ser58 COXIV Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

Blue Ice

Phospho-Ser58 COXIV Antibody - Protocols

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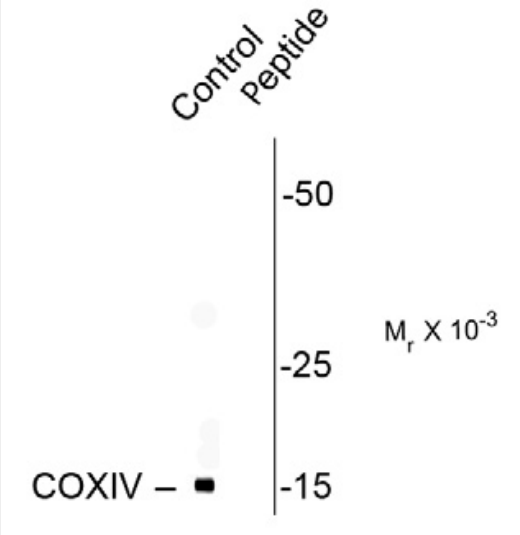
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Ser58 COXIV Antibody - Images



Western blot of rat mitochondrial lysate showing specific immunolabeling of the ~17k COXIV phosphorylated at Ser58 (Control). Immunolabeling is blocked by the phospho-peptide used as antigen (Peptide) but not by the corresponding dephospho-peptide (not shown).

Phospho-Ser58 COXIV Antibody - Background

COX, also known as cytochrome c oxidase, has 12 subunits that make up the transmembrane mitochondrial protein. Subunit IV has two isoforms; COXIV-1 and COXIV-2 (Huttermann et al., 2001). COXIV-1 is expressed ubiquitously while COXIV-2 is highly expressed in adult lung and low levels in brain and heart (Huttermann et al., 2001). Phosphorylation of amino acid residue ser58 of the COXIV-1 protein is a PKA-dependent regulation of COX and plays an important role in metabolism and CREB cycle activation (Acin-Perez et al., 2011).

Phospho-Ser58 COXIV Antibody - References

Acin-Perez R, Gatti D, Bai Y, Manfredi D (2011) Protein Phosphorylation and Prevention of Cytochrome Oxidase Inhibition by ATP: Coupled Mechanisms of Energy Metabolism Regulation. Cell Metabolism 13, 712-719.
Hüttermann M, Kadenbach B, and Grossman LI (2001) Mammalian subunit IV isoforms of cytochrome c oxidase. Gene 267, 111-123.