

#5247 Store at -20°C

COX IV (3E11) Rabbit mAb (HRP Conjugate)

✓ 100 µl (10 western blots)



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rev. 07/21/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #1327
Swiss-Prot Acc. #P13073

Applications W Endogenous	Species Cross-Reactivity* H, Mk	Molecular Wt. 17 kDa	Isotype Rabbit IgG
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Description: This Cell Signaling Technology (CST) antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated antibody (COX IV (3E11) Rabbit mAb #4850).

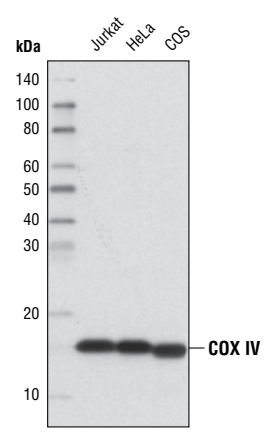
Background: Cytochrome c oxidase (COX) is a hetero-oligomeric enzyme consisting of 13 subunits localized to the inner mitochondrial membrane (1-3). It is the terminal enzyme complex in the respiratory chain, catalyzing the reduction of molecular oxygen to water coupled to the translocation of protons 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. Deficiency in COX activity has been correlated with a number of human diseases (4). The COX IV antibody can be used effectively as a mitochondrial loading control.

Specificity/Sensitivity: COX IV (3E11) Rabbit mAb (HRP Conjugate) detects endogenous levels of total COX IV protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys29 of human COX IV.

Background References:

- (1) Ostermeier, C. et al. (1996) *Curr. Opin. Struct. Biol.* 6, 460-466.
- (2) Capaldi, R.A. et al. (1983) *Biochim. Biophys. Acta* 726, 135-148.
- (3) Kadenbach, B. et al. (2000) *Free Radic. Biol. Med.* 29, 211-221.
- (4) Barrientos, A. et al. (2002) *Gene* 286, 53-63.



Western blot analysis of extracts from Jurkat, HeLa and COS cell lines, using COX IV (3E11) Rabbit mAb (HRP Conjugate).

Storage: Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

HRP conjugated antibodies do not require incubation with a secondary antibody.

Recommended Antibody Dilutions:
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.