

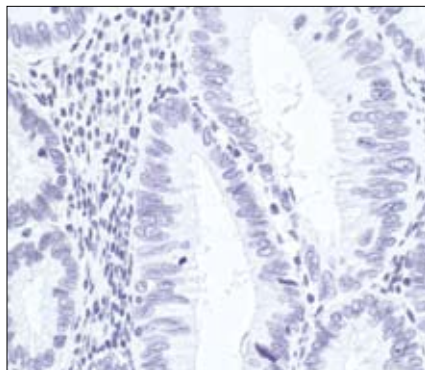
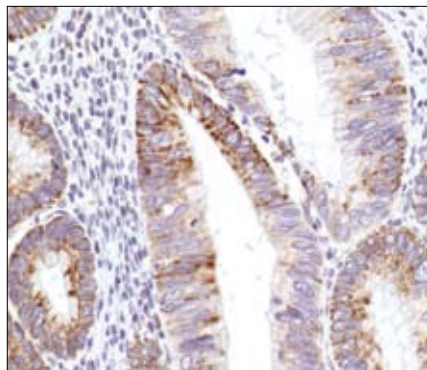
Cox IV Blocking Peptide

✓ 100 µg
(100 sections)

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This product is for *in vitro* research use only and is not intended for use in humans or animals.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using Cox IV Antibody #4844 in the presence of control peptide (left) or Cox IV Blocking Peptide (right).

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.

Description: This peptide is used to block COX IV Antibody #4844 and COX IV (3E11) Rabbit mAb #4850 reactivity.

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks COX IV Antibody #4844 and COX IV (3E11) Rabbit mAb #4850 by immunohistochemistry.

Applications: Use as a blocking reagent to evaluate the specificity of antibody reactivity in immunohistochemistry protocols.

Directions for Use: For immunohistochemistry, add twice the volume of peptide as volume of antibody used in 100 µl total volume. Incubate for a minimum of 30 minutes prior to adding the entire volume to the slide. Recommended antibody dilutions can be found on the relevant product data sheet.

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 Rad. Biol. Med.* 29, 211–221.
- (4) Barrientos, A. et al. (2002) *Gene* 286, 53–63.

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA and 5% glycerol. Store at -20°C.

Companion Products:

- COX IV Antibody #4844
- COX IV (3E11) Rabbit mAb #4850