Store at -20°C

#1056

E-Cadherin Blocking Peptide

☑ 100 µg
(100 sections)

Cell Signaling TECHNOLOGY®

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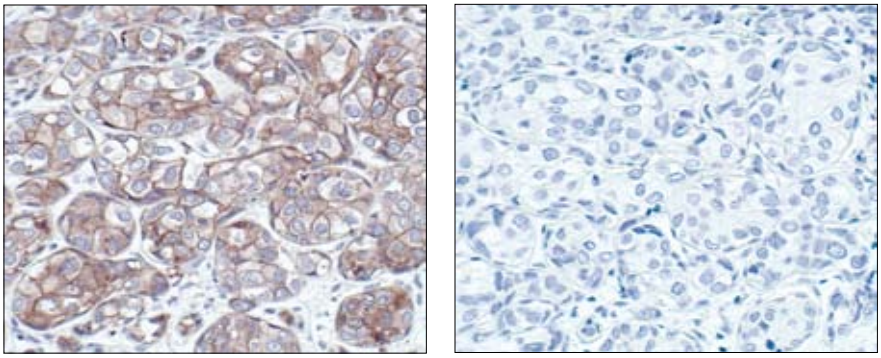

Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using E-Cadherin (24E10) Rabbit mAb #3195 in the presence of control peptide (left) or E-Cadherin Blocking Peptide (right).

Background: Cadherins are a superfamily of transmembrane glycoproteins that contain cadherin repeats of approximately 100 residues in their extracellular domain. Cadherins mediate calcium-dependent cell-cell adhesion and play critical roles in normal tissue development (1). The classic cadherin subfamily includes N-, P-, R-, B- and E-cadherins as well as about ten other members, which are found in adherens junctions (AJ), a cellular structure near the apical surface of polarized epithelial cells. The cytoplasmic domain of classical cadherins interacts with β-catenin, γ-catenin (also called plakoglobin) and p120 catenin. β-catenin and γ-catenin associate with α-catenin, which links the cadherin-catenin complex to the actin cytoskeleton (1,2). Unlike β- and γ-catenin, p120 regulates cadherin adhesive activity and trafficking rather than having a structural role in the junctional complex (1,4). E-cadherin is considered an acting suppressor of invasion and growth of many epithelial cancers (1-3). Recent studies indicate that cancer cells have up-regulated N-cadherin in addition to loss of E-cadherin. This change in cadherin expression is called the "cadherin switch." N-Cadherin cooperates with the FGF receptor, leading to over-expression of MMP-9 and cellular invasion (3).

Description: This peptide is used to block E-Cadherin (24E10) Rabbit mAb #3195 reactivity, as well as E-Cadherin Antibody #4065.

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks E-Cadherin (24E10) Rabbit mAb #3195 and E-Cadherin Antibody #4065 by immunohistochemistry.

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.

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

Background References:

(1) Wheelock, M.J. and Johnson, K.R. (2003) *Annu. Rev. Cell Dev. Biol.* 19, 207–235.

(2) Christofori, G. (2003) *EMBO J.* 22, 2318–2323.

(3) Hazan, R.B. et al. (2004) *Ann. N.Y. Acad. Sci.* 1014, 155–163.

(4) Bryant, D.M. and Stow, J.L. (2004) *Trends Cell Biol.* 14, 427–434.

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:

E-Cadherin (24E10) Rabbit mAb #3195

E-Cadherin Antibody #4065

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **IC**—Immunocytochemistry **IF**—Immunofluorescence **F**—Flow cytometry **E**—ELISA **D**—DELFIA®

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **X**—Xenopus **Z**—zebra fish **B**—bovine **All**—all species expected

Species enclosed in parentheses are predicted to react based on 100% sequence homology.