

**#4442** Store at -20°C

## OB-Cadherin (P707) Antibody


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	120	Rabbit	#P55287	1009

<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:100
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	OB-Cadherin (P707) Antibody detects endogenous levels of total OB-cadherin protein.	
<b>Species predicted to react based on 100% sequence homology:</b>	Monkey, Dog	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro707 of human OB-cadherin protein. Antibodies were purified by protein A and peptide affinity chromatography.	
<b>Background</b>	<p>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 that are found in adherens junctions, a cellular structure near the apical surface of polarized epithelial cells. The cytoplasmic domain of classical cadherins interacts with <math>\beta</math>-catenin, <math>\gamma</math>-catenin (also called plakoglobin), and p120 catenin. <math>\beta</math>-catenin and <math>\gamma</math>-catenin associate with <math>\alpha</math>-catenin, which links the cadherin-catenin complex to the actin cytoskeleton (1,2). While <math>\beta</math>- and <math>\gamma</math>-catenin play structural roles in the junctional complex, p120 regulates cadherin adhesive activity and trafficking (1-4). Investigators consider E-cadherin an active suppressor of invasion and growth of many epithelial cancers (1-3). Research studies indicate that cancer cells have upregulated 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 overexpression of MMP-9 and cellular invasion (3). Research studies have shown that in endothelial cells, VE-cadherin signaling, expression, and localization correlate with vascular permeability and tumor angiogenesis (5,6). Investigators have also demonstrated that expression of P-cadherin, which is normally present in epithelial cells, is also altered in ovarian and other human cancers (7,8).</p> <p>OB-cadherin (CDH11) is highly expressed in osteoblastic cell lines (9). Its upregulation during differentiation in cells of the osteo-lineage and the chondro-lineage implies a specific role in bone cell differentiation and bone formation (9,10).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Wheelock, M.J. and Johnson, K.R. (2003) <i>Annu Rev Cell Dev Biol</i> 19, 207-35.</li> <li>2. Christofori, G. (2003) <i>EMBO J</i> 22, 2318-23.</li> <li>3. Hazan, R.B. et al. (2004) <i>Ann N Y Acad Sci</i> 1014, 155-63.</li> <li>4. Bryant, D.M. and Stow, J.L. (2004) <i>Trends Cell Biol</i> 14, 427-34.</li> <li>5. Rabascio, C. et al. (2004) <i>Cancer Res</i> 64, 4373-7.</li> <li>6. Yamaoka-Tojo, M. et al. (2006) <i>Arterioscler Thromb Vasc Biol</i> 26, 1991-7.</li> <li>7. Patel, I.S. et al. (2003) <i>Int J Cancer</i> 106, 172-7.</li> <li>8. Sanders, D.S. et al. (2000) <i>J Pathol</i> 190, 526-30.</li> <li>9. Okazaki, M. et al. (1994) <i>J. Biol. Chem.</i> 269, 12092-12098.</li> <li>10. Kii, I. et al. (2004) <i>J. Bone Miner. Res.</i> 19, 1840-1849.</li> </ol>	

**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

**Cross-Reactivity Key**

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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