

**DESCRIPTION**

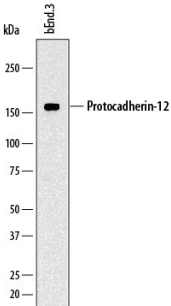
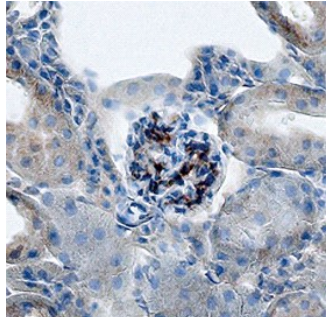
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Protocadherin-12 in ELISA.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 868909
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Protocadherin-12 Met1-Ala716 Accession # O55134
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below

**DATA**

<p><b>Western Blot</b></p> 	<p><b>Detection of Mouse Protocadherin-12 by Western Blot.</b> Western blot shows lysates of bEnd.3 mouse endothelioma cell line. PVDF membrane was probed with 1 µg/mL of Rat Anti-Mouse Protocadherin-12 Monoclonal Antibody (Catalog # MAB7926) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for Protocadherin-12 at approximately 160 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Protocadherin-12 in Mouse Kidney.</b> Protocadherin-12 was detected in perfusion fixed frozen sections of mouse kidney using Rat Anti-Mouse Protocadherin-12 Monoclonal Antibody (Catalog # MAB7926) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific staining was localized to glomeruli. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

PCDH12 (Protocadherin 12; also VE-Cadherin 2) is a 150-160 kDa glycoprotein member of the PCDH family of molecules. It exhibits limited expression, being found on endothelial cells, renal mesangium, Sertoli cells, and glycogen-positive trophoblast cells. PCDH is a transmembrane protein that forms homotypic aggregates in a calcium-dependent manner. Although this would suggest a prominent role in cell-cell adhesion, it is unclear if this is the only activity for the molecule. In any case, it appears that PCDH12 does play an important role in placental development. Mature mouse PCDH12 is an 1163 amino acid (aa) type I transmembrane protein (aa 18-1180). It possesses a 699 aa extracellular region (aa 18-716) that contains six cadherin domains (aa 28-711), plus a 21 aa transmembrane segment coupled to a lengthy 443 aa cytoplasmic domain (aa 738-1180). Based on human, mouse PCDH12 will undergo proteolytic processing. MMP activity will first generate a 90 kDa circulating extracellular fragment and a 60 kDa membrane-bound fragment, followed by γ-secretase which has the potential to further act on the membrane-bound fragment, generating a cytosolic 50 kDa fragment. There is one potential alternative start site at Met1060. Over aa 18-716, mouse PCDH12 shares 95% and 82% aa sequence identity with rat and human PCDH12, respectively.