

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Protocadherin-8 in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human Protocadherin-10 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Protocadherin-8 Lys30-Pro749 Accession # O95206
<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 either lyophilized or as a 0.2 µm filtered solution in PBS.

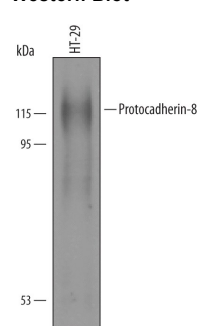
## APPLICATIONS

**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>Immunocytochemistry</b>	5-15 µg/mL	See Below

## DATA

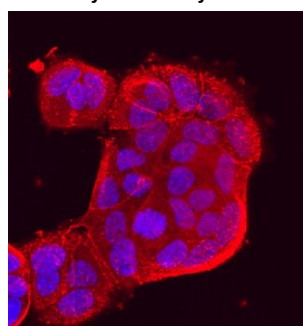
### Western Blot



#### Detection of Human Protocadherin-8 by Western Blot.

Western blot shows lysates of HT-29 human colon adenocarcinoma cell line. PVDF Membrane was probed with 1 µg/mL of Human Protocadherin-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5434) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Protocadherin-8 at approximately 115 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

### Immunocytochemistry



#### Protocadherin-8 in MCF-7 Human Cell Line.

Protocadherin-8 was detected in immersion fixed MCF-7 human breast cancer cell line using Human Protocadherin-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5434) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 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

Protocadherin 8 (PCDH-8, Arcadin) is a 110-115 kDa group F member of the protocadherin family of molecules. It is expressed in breast epithelium, the synaptic membranes of neurons, and presumably forms Ca<sup>++</sup>-dependent homophilic complexes. In breast, it is believed to contribute to a stable epithelial architecture, while in brain, it impacts LTP. Mature human PCDH-8 is a type I transmembrane protein that is 1041 amino acids (aa) in length. It contains a 720aa extracellular domain (ECD) (aa 30-749) plus a 300 aa cytoplasmic region. There are six cadherin domains in the ECD (aa 30-723). Multiple splice variants exist. Two show deletions of aa 134-607 and 781-877, respectively, while a third shows a six aa substitution for aa 365-527. Over aa 30-689, human PCDH-8 shares 93% aa identity with mouse PCDH-8.