

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse E-Cadherin in direct ELISAs and Western blots. In direct ELISAs, approximately 75% cross-reactivity with recombinant rat CDH-1/E-Cadherin is observed, approximately 20% cross-reactivity with recombinant human (rh) E-Cadherin is observed, and less than 4% cross-reactivity with rhK-Cadherin, rhCadherin-8, rhCadherin-17, and recombinant mouse P-Cadherin is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse E-Cadherin Asp157-Val709 Accession # P09803
<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.

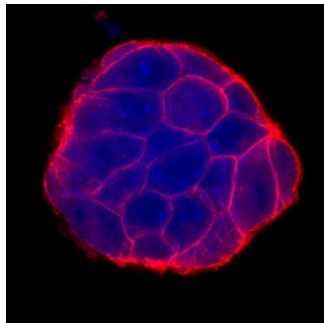
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse E-Cadherin Fc Chimera (Catalog # 748-EC)
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	D3 mouse embryonic stem cell line
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

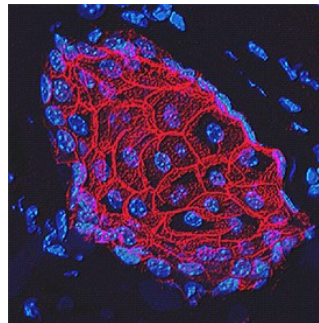
## DATA

### Immunocytochemistry



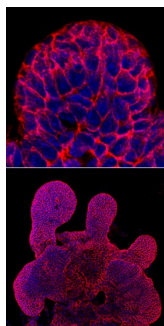
**E-Cadherin in D3 Mouse Embryonic Stem Cell Line.** E-Cadherin was detected in immersion fixed D3 mouse embryonic stem cell line using Goat Anti-Mouse E-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF748) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

### Immunohistochemistry



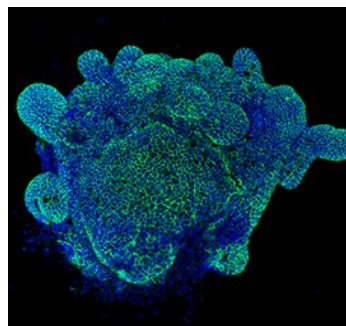
**E-Cadherin in Mouse Skin.** E-Cadherin was detected in perfusion fixed frozen sections of mouse skin using Goat Anti-Mouse E-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF748) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to plasma membranes in keratinocytes. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

### Immunocytochemistry



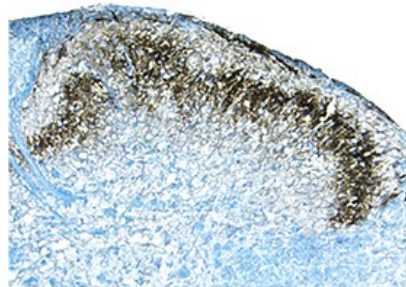
**E-Cadherin in Mouse Intestinal Organoids.** E-Cadherin was detected in immersion fixed mouse intestinal organoids using Goat Anti-Mouse E-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF748) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (green; Catalog # NL001) and counterstained with DAPI (blue). Magnification shown at 100X (upper panel) and 40X (lower panel). Specific staining was localized to cell surfaces. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunocytochemistry



**E-Cadherin in Mouse Intestinal Organoids.** E-Cadherin was detected in immersion fixed mouse intestinal organoids using Goat Anti-Mouse E-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF748) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 493-conjugated Anti-Goat IgG Secondary Antibody (green; Catalog # NL003) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## Immunohistochemistry



**E-Cadherin in Mouse Spinal Cord.** E-Cadherin was detected in perfusion fixed frozen sections of mouse spinal cord using Goat Anti-Mouse E-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF748) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to dorsal horn. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

## 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

Epithelial (E)-Cadherin (ECAD), also known as cell-CAM120/80 in the human, uvomorulin in the mouse, Arc-1 in the dog, and L-CAM in the chicken, is a member of the cadherin family of cell adhesion molecules. Cadherins are calcium-dependent transmembrane proteins, which bind to one another in a homophilic manner. On their cytoplasmic side, they associate with the three catenins,  $\alpha$ ,  $\beta$ , and  $\gamma$  (plakoglobin). This association links the cadherin protein to the cytoskeleton. Without association with the catenins, the cadherins are non-adhesive. Cadherins play a role in development, specifically in tissue formation. They may also help to maintain tissue architecture in the adult. E-Cadherin may also play a role in tumor development, as loss of E-Cadherin has been associated with tumor invasiveness. E-Cadherin is a classical cadherin molecule. Classical cadherins consist of a large extracellular domain which contains DXD and DXNDN repeats responsible for mediating calcium-dependent adhesion, a single-pass transmembrane domain, and a short carboxy-terminal cytoplasmic domain responsible for interacting with the catenins. E-Cadherin contains five extracellular calcium-binding domains of approximately 110 amino acids each.

## References:

1. Bussemakers, M.J.G. *et al.* (1993) *Mol. Biol. Reports* **17**:123.
2. Overduin, M. *et al.* (1995) *Science* **267**:386.
3. Takeichi, M. (1991) **251**:1451.