

DESCRIPTION

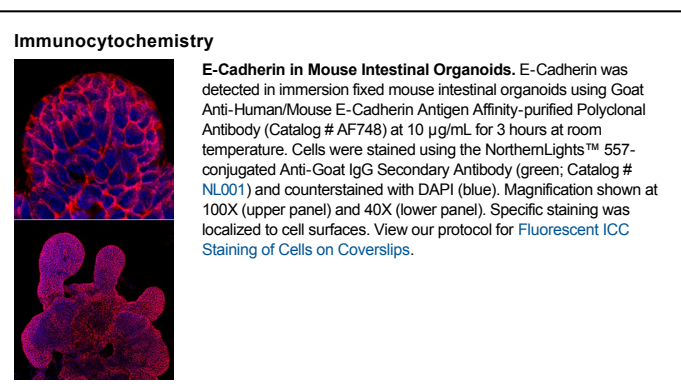
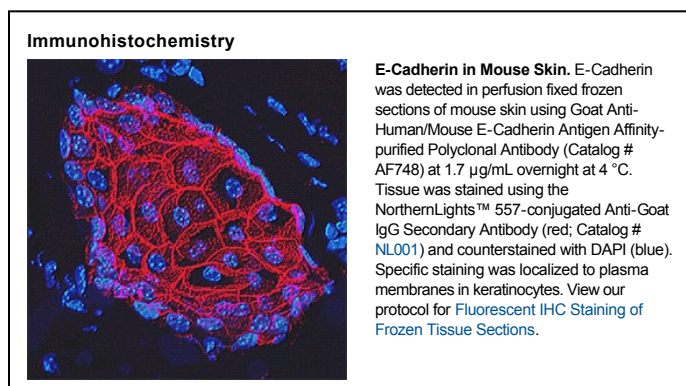
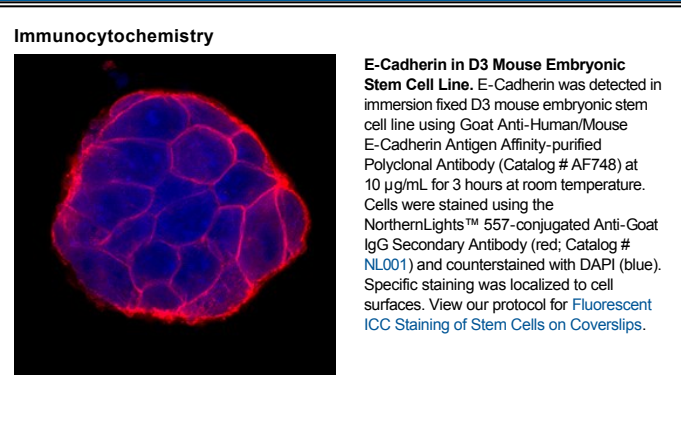
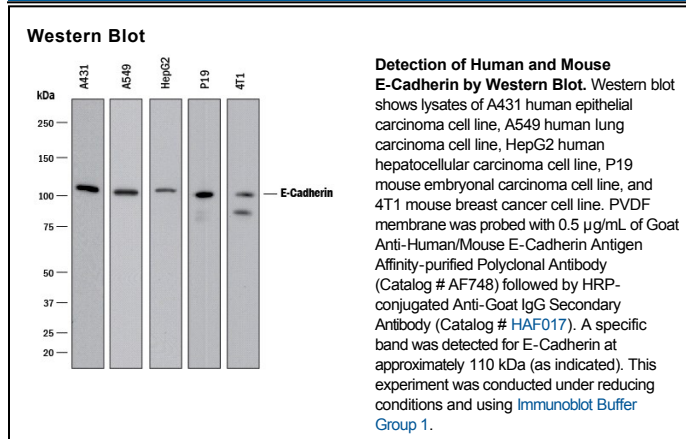
Species Reactivity	Human/Mouse
Specificity	Detects mouse E-Cadherin in direct ELISAs and Western blots. In direct ELISAs, approximately 75% cross-reactivity with recombinant rat E-Cadherin is observed and less than 4% cross-reactivity with rhK-Cadherin, rhCadherin-8, rhCadherin-17, and recombinant mouse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

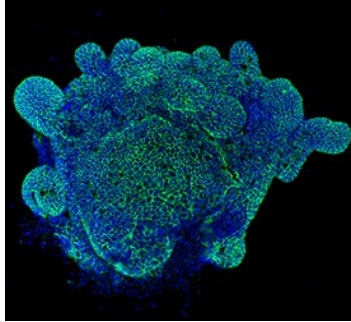
Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Flow Cytometry	0.25 µg/10 ⁶ cells	D3 mouse embryonic stem cell line
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	5 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



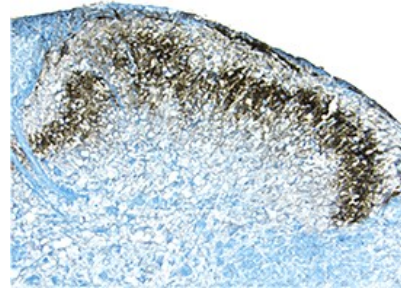
Immunocytochemistry



E-Cadherin in Mouse

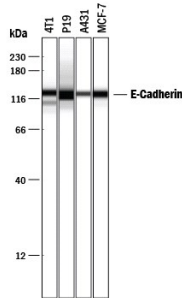
Intestinal Organoids. E-Cadherin was detected in immersion fixed mouse intestinal organoids using Goat Anti-Human/Mouse E-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF748) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 493-conjugated Anti-Goat 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-Human/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](#).

Simple Western



Detection of Human and Mouse E-Cadherin by Simple Western™

Simple Western lane view shows lysates of 4T1 mouse breast cancer cell line, P19 mouse embryonal carcinoma cell line, A431 human epithelial carcinoma cell line, and MCF-7 human breast cancer cell line, loaded at 0.2 mg/mL. A specific band was detected for E-Cadherin at approximately 128 kDa (as indicated) using 5 µg/mL of Goat Anti-Human/Mouse E-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF748) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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, α , β , and γ (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.