

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse, and rat Ezrin in Western blots and detects recombinant human Ezrin in direct ELISAs.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Ezrin Lys438-Arg562 Accession # P15311
<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.

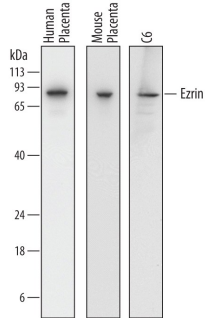
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.2 µg/mL	See Below
<b>Immunohistochemistry</b>	0.5-15 µg/mL	See Below

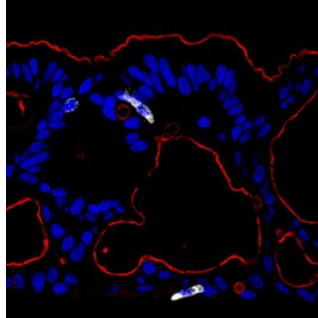
## DATA

**Western Blot**



**Detection of Human, Mouse, and Rat Ezrin by Western Blot.** Western blot shows lysates of human placenta tissue, mouse placenta tissue, and C6 rat glioma cell line. PVDF membrane was probed with 0.2 µg/mL of Sheep Anti-Human/Mouse/Rat Ezrin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7239) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Ezrin at approximately 81 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunohistochemistry**



**Ezrin in Human Colon Stem Cells.** Ezrin was detected in immersion fixed paraffin-embedded sections of human colon stem cells differentiating into ascending colon using Sheep Anti-Human/Mouse/Rat Ezrin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7239) at 0.5 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010). Chromogranin A was also detected using Mouse Anti-Human Chromogranin A Monoclonal Antibody (Catalog # MAB90981) at 0.5 µg/mL overnight at 4 °C. Tissue was co-stained using the NorthernLights™ 637-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL008) and counterstained with DAPI (blue). Specific staining of Ezrin was localized to microtubules. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<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

EZRIN (also Cytovillin, Villin2 and p81) is a founding member of the ERM family, Band 4.1 Superfamily of proteins. Although its predicted MW is 69 kDa, it runs anomalously at 77-82 kDa in SDS-PAGE. ERZIN is expressed by epithelial cells where it serves as a linker between the cell membrane and the actin cytoskeleton. Its presence is particularly strong in microvilli where it helps organize this structure. In addition, ERZIN also organizes microtubules in lymphocytes at or near the immunological synapse by interacting with G1. Human EZRIN is 585 amino acids (aa) in length. It contains a band 4.1 homology/FERM domain that binds CD44, ICAM-1, EBP50 and ERM family members (aa 1-295), a central α-helical region (aa 296-352), and a C-terminal ERM and actin-binding/FERM C domain (aa 353-586). EZRIN exists as either a monomer, or a homo/heterodimer. EZRIN is not constitutively active, but must be phosphorylated and unfolded to bind to cytoplasmic proteins. Over aa 438-562, human EZRIN shares 96% aa identity with mouse EZRIN.