

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human ICAM-5 in Western blots. In Western blots, approximately 10% cross-reactivity with recombinant mouse ICAM-5 is observed and less than 2% cross-reactivity with recombinant human (rh) ICAM-1, rhICAM-2, and rhICAM-3 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 ICAM-5 Ala28-Glu570 Accession # Q9UMF0
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

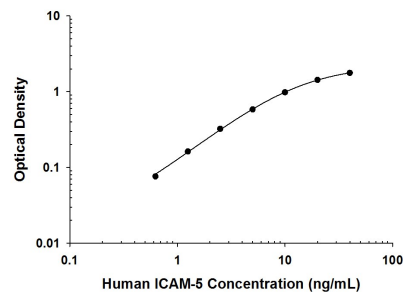
## APPLICATIONS

**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>	0.1 µg/mL	Recombinant Human ICAM-5 Fc Chimera (Catalog # 1950-M5)
<b>Human ICAM-5 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Human ICAM-5 Antibody (Catalog # MAB1950)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Human ICAM-5 Biotinylated Antibody (Catalog # BAF1950)
<b>Standard</b>		Recombinant Human ICAM-5 Fc Chimera (Catalog # 1950-M5)

## DATA

### ELISA Detection (Matched Antibody Pair)



**Human ICAM-5 ELISA Standard Curve.** Recombinant Human ICAM-5 protein (Catalog # 1950-M5) was serially diluted 2-fold and captured by Mouse Anti-Human ICAM-5 Monoclonal Antibody (Catalog # MAB1950) coated on a Clear Polystyrene Microplate (Catalog # DY990). Goat Anti-Human ICAM-5 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF1950) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

## 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.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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

Intercellular adhesion molecule-5 (ICAM-5), also known as telencephalin, is a cell surface glycoprotein belonging to the immunoglobulin superfamily. Human ICAM-5 consists of an 832 amino acid (aa) extracellular domain containing 9 immunoglobulin (Ig) domains and 15 N-glycosylation sites, a 28 aa transmembrane domain, and a 64 aa cytoplasmic domain. ICAM-5 shares 38-55% aa identity with other ICAMs, being most closely related to ICAM-1 (50% identity) and ICAM-3 (55% identity) (1). Human and mouse ICAM-5 share 85% aa identity. The tissue distribution of ICAM-5 is unique among ICAMs, being expressed only in telencephalic regions of the central nervous system (2). Like other ICAMs, ICAM-5 binds to the leukocyte integrin LFA-1 (CD11a/CD18) (3). Binding of ICAM-5 to LFA-1 is dependent on the first amino terminal Ig domain of ICAM-5 (4). ICAM-5 also displays homophilic binding, with the amino terminal Ig domain binding to Ig domains 4-5. Homophilic binding of ICAM-5 is dependent of ICAM-5 being in a monomeric form. The monomeric form of ICAM-5 is found during dendritogenesis in developing brain, whereas a high molecular weight complex is found in mature neurons (5).

## References:

1. Mizuno, T. *et al.* (1997) *J. Biol. Chem.* **272**:1156.
2. Yoshihara, Y. *et al.* (1994) *Neuron* **12**:541.
3. Tain, L. *et al.* (1997) *J. Immunol.* **158**:928.
4. Tain, L. *et al.* (2000) *Eur. J. Immunol.* **30**:810.
5. Tain, L. *et al.* (2000) *J. Immunol.* **150**:243.