

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse ICAM-5 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) ICAM-5 and recombinant mouse (rm) ICAM-2 is observed, 5% cross-reactivity with recombinant rat ICAM-1, rhICAM-1, and rhICAM-3 is observed and less than 1% cross-reactivity with rmICAM-1 and rmVCAM-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse ICAM-5 Leu31-Arg828 (Pro47Arg) Accession # Q60625
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. 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.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse ICAM-5 Fc Chimera (Catalog # 1173-M5)
Immunohistochemistry	5-15 µg/mL	Perfusion fixed frozen sections of mouse brain (hippocampus and cortex)

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.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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

Intercellular adhesion molecule-5 (ICAM-5), also known as telencephalin, is an integral membrane glycoprotein expressed in neurons of mammalian telencephalons. ICAM-5 is a member of the immunoglobulin superfamily and shares 38-55% amino acid homology with other ICAMs. Structurally, ICAM-5 contains nine Ig domains that included 15 N-glycosylation sites, a single transmembrane region, and C-terminal cytoplasmic tail (1). As with other members of the ICAM family, ICAM-5 has been shown to be involved in cellular adhesion. ICAM-5 binds to the leukocyte integrin LFA-1 (CD11a/CD18) via its first NH2-terminal Ig domain. The ability of ICAM-5 to bind LFA-1 suggests that ICAM-5 may play an important role in immune responses in the central nervous system (2). Additionally, ICAM-5 has been found to promote homophilic binding via binding of the first Ig domain to Ig domains 4-5. Homophilic adhesion activity of ICAM-5 is regulated by a monomer/tetramer transition. ICAM-5 expression temporally parallels the onset of dendritic elongation and synaptogenesis during the postnatal period suggesting that ICAM-5 may provide a brain segment-specific cue for synaptogenesis or dendrite-dendrite interaction (3).

References:

1. Tian, L. *et al.* (2000) Eur. J. Immunol. **30**:810.
2. Mizuno, T. and K. Mori (1997) J. Biol. Chem. **272**:1156.
3. Tian, L. *et al.* (2000) J. Cell Biol. **150**:243.