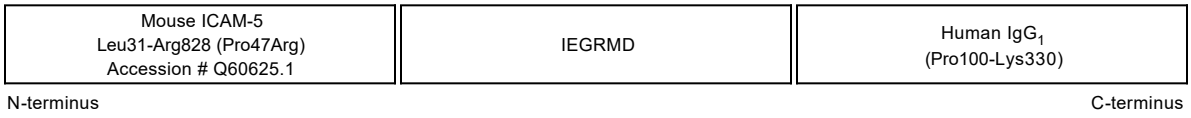
Recombinant Mouse ICAM-5 Fc Chimera

Catalog Number: 1173-M5

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived



N-terminal Sequence Analysis	Leu31
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	112 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	166 kDa, reducing conditions
Activity	Measured by the ability of the immobilized protein to support the adhesion of PMA-stimulated HSB2 human peripheral blood acute lymphoblastic leukemia cells. When 5 x 10^4 cells/well are added to recombinant mouse ICAM-5 Fc Chimera coated plates (25 µg/mL with 100 µL/well), >25% cells will adhere after 1 hour incubation at 37 °C. **Optimal dilutions should be determined by each laboratory for each application.**
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in Tris-Citrate and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 400 µg/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.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 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.

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