Human BCAM Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF148

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BCAM in direct ELISAs and Western blots. In these formats, approximately 2% cross-reactivity with recombinant human (rh) ALCAM is observed and less than 1% cross-reactivity with rhPECAM, rhEpCAM, rhICAM-1, rhICAM-2, rhICAM-3, and rhVCAM-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BCAM Glu32-Ala547 Accession # CAA58449
Endotoxin Level	<0.1 EU per 1 µg of the antibody by the LAL method.
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 Human BCAM Fc Chimera (Catalog # 148-BC)
Adhesion Blockade	The adhesion of TE-85 human osteogenic sarcoma cells (5 x 10^4 cells/well) to immobilized Recombinant Human BCAM Fc Chimera (Catalog # 148-BC, 10 µg/mL, 100 µL/well) was maximally inhibited (80-100%) by 25 µg/mL of the antibody.	

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.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

BACKGROUND

Basal-Cell Adhesion Molecule (BCAM) and Lutheran blood group glycoprotein (LU) are two alternatively spliced variants of a single immunoglobulin superfamily (IgSF) protein that differ in the length of their cytoplasmic tails. BCAM cDNA encodes a 628 amino acid (aa) residues precursor protein with a putative 31 aa signal peptide, a 597 aa extracellular domain containing three C2 type and two V-type Ig like domains, a 21 aa transmembrane domain, and a 19 aa cytoplasmic domain. Compared to the 40 aa cytoplasmic domain present in LU, the BCAM cytoplasmic tail lacks the putative Src homology 3 (SH3) binding site that may be involved in mediating intracellular signaling. BCAM/LU has wide tissue distribution and is expressed on erythrocytes, the endothelium of blood vessels and on the basal layer of cells in the epithelia. The expression of BCAM/LU in normal tissues is higher in fetal versus adult tissues. BCAM/LU expression is also upregulated in sickle cell disease red blood cells, in activated keratinocytes and following malignant transformation in some cell types *in vivo* and *in vitro*. BCAM/LU has been shown to be an adhesion molecule that binds laminin, a basement membrane protein involved in cell differentiation, adhesion, migration and proliferation.

References:

1. Campbell, I.G. *et al.* (1994) Cancer Research **54**:5761.
2. Parsons, S.F. *et al.* (1995) Proc. Natl. Acad. Sci. USA **92**:5496.
3. Udani, M. *et al.* (1998) J. Clin. Invest. **101**:2550.
4. Schon, M. *et al.* (2000) J. Invest. Dermatol. **115**:1047.