

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BCAM in ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) ALCAM, rhEpCAM, recombinant mouse (rm) MAdCAM-1, rhMCAM, rhNCAM-L1, rmOCAM, or rmTROP-2 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 87207
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BCAM Glu32-Ala547 Accession # CAA58449
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	1 µg/mL	Recombinant Human BCAM Fc Chimera (Catalog # 148-BC)
Human BCAM Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human BCAM Antibody (Catalog # MAB1481)
ELISA Detection	0.1-0.4 µg/mL	Human BCAM Biotinylated Antibody (Catalog # BAF148)
Standard		Recombinant Human BCAM Fc Chimera (Catalog # 148-BC)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

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) **101**:2550.
4. Schon, M. *et al.* (2000) *J. Invest. Dermatol.*, **115**:1047.