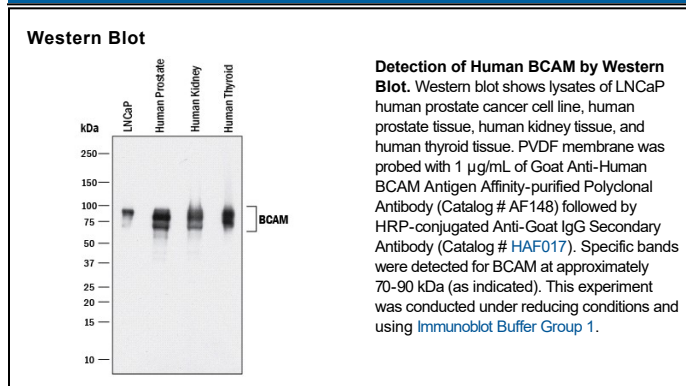## DESCRIPTION

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	<0.10 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. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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	See Below
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.	

DATA

Western Blot

Detection of Human BCAM by Western Blot. Western blot shows lysates of LNCaP human prostate cancer cell line, human prostate tissue, human kidney tissue, and human thyroid tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human BCAM Antigen Affinity-purified Polyclonal Antibody (Catalog # AF148) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). Specific bands were detected for BCAM at approximately 70-90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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. • 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) J. Clin. Invest. **101**:2550.
4. Schon, M. *et al*. (2000) J. Invest. Dermatol. **115**:1047.