

# Produktinformation



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## Anti-ED-B domain of fibronectin [BC-1] Standard Size Ab03457-23.0

This chimeric rabbit antibody was made using the variable domain sequences of the original Human IgG1 format for improved compatibility with existing reagents assays and techniques.

Isotype and Format: Rabbit IgG, Kappa

Clone Number: BC-1

**Alternative Name(s) of Target:** FN; EDB(+) FN; Extra domain-B containing fibronectin; oncofetal fibronectin; cold-insoluble globulin; CIG; BC1; HuBC-1

**UniProt Accession Number of Target Protein:** P02751

Published Application(s): RIA, WB, IHC

Published Species Reactivity: Human

**Immunogen:** The original mouse antibody was generated by immunizing mice with fibronectin derived from a culture medium of SV40-transformed Wi-38 embryonic human lung cells and defined Wi-38Val3. The humanized version was generated later by grafting CDRs of original mouse antibody onto human framework regions.

**Specificity:** This antibody is selective for a cryptic epitope in domain 7 of the B-form splice variant ED-B sequence of fibronectin (EDB-FN). This antibody does not react with plasma fibronectin or thermolysin-digested fibronectin from Wi-38 or Wi-38Val3 cells. Fibronectins bind cell surfaces and various compounds including collagen, fibrin, heparin, DNA, and actin. They are involved in cell adhesion, cell motility, opsonization, wound healing, and maintenance of cell shape.

**Application Notes:** This antibody is the recombinant humanized version of original anti-fibronectin mouse antibody BC-1. The binding specificity of this antibody for fibronectins was determined using western blotting and radioimmunoassay. This antibody showed strong reaction with WI-38VA13 FN fragments, negative reaction with plasma FN fragments, and a barely detectable reaction with WI-38 FN fragments in a western blot. This antibody was used in the immunohistochemical analysis of the distribution of the ED-Bcontaining fibronectin isoform (B-FN) in human tissues. The results obtained indicated that fibronectin has a widespread distribution in normal and adult human tissues but the B-FN isoform is restricted only to synovial cells, to some vessels and areas of the interstitium of the ovary, and to the myometrium. Additionally, the B-FN isoform is restricted only to synovial cells, to some vessels and areas of the interstitium of the ovary, and to the myometrium (PMID: 2646306). B-FN isoform is highly expressed during angiogenesis both in neoplastic and in normal tissues and can serve as a marker for formation of new vessels. This antibody can be used for evaluating the level of the angiogenetic process in different neoplasms (PMID: 7525495). This antibody detects human oncofetal fibronectin, which has extremely restricted distribution in normal adult tissues and is highly expressed in fetal and tumor tissues. The biodistribution of 125 lodine labelled BC-1 was studied in nude mice bearing subcutaneous human tumor implants of U87MG high-grade astrocytoma and SKMel28 melanoma. The results obtained suggested that radiolabeled antibody has tumor targeting potential in vivo and can be a useful marker of neo angiogenesis induced by cancer (PMID: 9406686).

**Antibody First Published in:** Carnemolla et al. A tumor-associated fibronectin isoform generated by alternative splicing of messenger RNA precursors. J Cell Biol. 1989 Mar;108(3):1139-48. PMID:2646306 **Note on publication:** Describes the production and characterization of an antibody specific for the ED-B domain of fibronectin.

### **Product Form**

**Size:** 100 μg Purified antibody. **Purification:** Protein A affinity purified **Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at - 20°C.

#### Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.