

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BOC in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 40% cross-reactivity with recombinant mouse BOC is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BOC Asp31-Asp852 Accession # Q9BWV1
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

BOC (Brother of CDO [CAM-related/down-regulated by oncogenes]) is a member of the Immunoglobulin (Ig) superfamily, Ig/Fibronectin (FN) type III repeat family of cell surface proteins (1). Human BOC is a type I transmembrane (TM) protein. It is synthesized as a 1114 amino acid (aa) precursor that contains a 30 aa signal sequence, an 825 aa extracellular domain (ECD), a 21 aa TM segment and a 238 aa cytoplasmic region (1, 2). The ECD contains four Ig-like domains, followed by three FN type III repeats. The third (or juxtramembrane) FN type III repeat (aa 712-809) binds SHH (3). The intracellular region is not essential for BOC-containing receptor complex signaling (1). However, it appears both the ECD and intracellular regions of BOC are used to form functional subunit interactions in *cis*-oriented receptor complexes (1, 4). One 157 aa BOC alternate splice form is reported that shows a 32 aa substitution for aa 126-1114. The ECD of human BOC is 92% aa identical to mouse BOC ECD. BOC is found in the embryo associated with muscle precursors, limb mesenchyme, early chondrocytes and neurons (2, 5, 6). It appears to promote muscle differentiation and axon guidance (2, 6). BOC contributes to two multi-subunit receptor complexes. On myocytes, a BOC-associated complex includes CDO, neogenin, netrin, and at least two cadherin homodimers formed by either M- or N-cadherin (2). A second complex on neurons, somewhat ill-defined, potentially includes BOC, CDO and Gas1. Here, BOC and/or CDO interact with SHH, with subsequent "transfer" or presentation of SHH to PTCH1 (6, 7).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.