

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human COCO in direct ELISAs and Western blots. In these formats, less than 1% cross-reactivity with recombinant mouse COCO is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human COCO (R&D Systems, Catalog # 3047-CC) Arg23-Ala189 Accession # NP_689867
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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

COCO, also known as DAND5, Dante, and CKTSF1B3, is a member of the DAN Domain family of BMP antagonists that includes DAN (DAND1), Gremlin/Drm (DAND2), PRDC (Protein Related to Dan and Cerberus; DAND3), and Cerberus (DAND4). DAN family members contain a cysteine-knot domain that is homologous to that found in other TGF-β superfamily ligands (1-3). BMPs play important roles in tissue morphogenesis and development processes (4-6). The human COCO cDNA encodes a 189 amino acid (aa) precursor with a 22 aa signal sequence (2, 7). COCO has eight Cys residues in the cysteine-knot which places it in the CAN subfamily of BMP antagonists along with the other DAN family proteins (1). Human COCO shares 60% and 24% aa sequence identity with mouse and *Xenopus* COCO, respectively. It shares 17%, 20%, 25%, and 22% aa sequence identity with human DAN, Gremlin, PRDC, and Cerberus, respectively. In *Xenopus* embryonal development, COCO is expressed by pluripotent ectodermal cells. Expression is abruptly downregulated prior to gastrulation, and the loss of ectodermal cell pluripotency is coincident with COCO downregulation (7). COCO binds and inhibits Xnr1, BMP-4, Activin, and Wnt-8 (7). In mouse, COCO expression is elevated on the right side of Henson's node at the early somite stage, in contrast to the left side expression of Nodal (8). COCO may cooperate with Nodal in gastrulation and embryonic left-right axis formation (5, 8).

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.