

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse COCO in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) COCO, rhDAN, recombinant mouse (rm) Gremlin, rmCerberus, and recombinant chicken Caronte is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 340531
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse COCO Arg24-Leu185 Accession # Q76LW6
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

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 such as BMPs that play important roles in tissue morphogenesis and developmental processes (1-6). The mouse COCO cDNA encodes a 185 amino acid (aa) precursor with a 23 aa signal sequence (7, 8). COCO has eight Cys residues in the cysteine knot which places it in the CAN (or eight-membered ring) subfamily of BMP antagonists along with the other DAN family proteins (1). Mature mouse COCO shares 62% and 27% aa sequence identity with human and *Xenopus* COCO, respectively. It shares 22%-27% aa sequence identity with mouse DAN, Gremlin, PRDC, and Cerberus. In *Xenopus* embryos, 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 is required for *Xenopus* left-right axis formation (9). It functions predominantly on the right side of the embryo, although it is equally expressed on both left and right sides (9). COCO binds and inhibits activin, BMP-4, GDF-3/derrière, Wnt8, and Xnr1 (7, 9). 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).

PRODUCT SPECIFIC NOTICES

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