

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CDO in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 50% cross-reactivity with recombinant mouse CDO is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CDO Asp26-Pro943 (Leu669Ile) Accession # NP_058648
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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	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

CDO (CAM-related/down-regulated by oncogenes, also CDON; pronounced "kid-oh") is a 190 kDa member of the Immunoglobulin (Ig) superfamily, Ig/Fibronectin (FN) type III repeat family of cell surface proteins (1). Human CDO is a type I transmembrane (TM) glycoprotein. It is synthesized as a 1287 amino acid (aa) precursor that contains a 25 aa signal sequence, a 938 aa extracellular domain (ECD), a 21 aa TM segment and a 303 aa cytoplasmic region (1, 2). The ECD contains five C2-type Ig-like domains, followed by three FN type III repeats. The first FN repeat (aa 577-673) is known to bind numerous cadherins, while the third (or juxtamembrane) FN type III repeat (aa 826-923) binds SHH (3, 4). The intracellular region is believed to signal through various bHLH transcription factors (2). One alternate splice form is reported that shows a deletion of aa 1212-1234 in the cytoplasmic tail. The ECD of human CDO is 85% aa identical to mouse CDO ECD. CDO is found on muscle precursor and neural progenitor cells of the embryo (5, 6). It likely promotes muscle differentiation, and contributes to axon guidance and neuronal patterning (2, 7, 8, 9). These effects may be mediated through two different receptor complexes. On muscle precursors, CDO apparently acts as both a coordinating and signaling subunit. Here, it integrates N- and M-cadherin, neogenin, netrin-3 and BOC into a cis-oriented receptor complex (2). While this complex has no identified ligand, intercellular cadherin interactions or netrin, may be enough to trigger CDO/cadherin/neogenin signaling. On axons, CDO may participate in a poorly-defined receptor complex minimally composed of CDO, BOC and Gas1 that binds SHH, and interacts with PTCH1 (7, 8, 10).

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