Human CDO Biotinylated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: BAF4384

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CDO in Western blots. In 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
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human CDO (Catalog # 4384-CD)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CDO (CAM-related/down-regulated by oncogenes, also CDON; pronounced “kid-oh”) is a 190 kDa member of the Immunoglubulin (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 juxtramembrane) 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).

References:

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