Recombinant Mouse CDO His-tag

Catalog Number: 10505-CD

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived mouse CDO protein Asp25-Tyr962, with a C-terminal 6-His tag Accession # Q32MD9.2
N-terminal Sequence Analysis	Asp25
Predicted Molecular Mass	103 kDa

SPECIFICATIONS

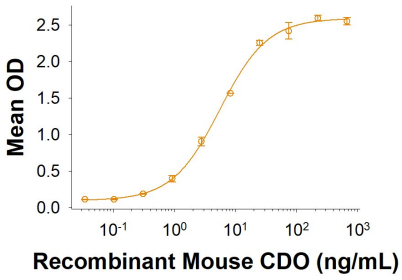
SDS-PAGE	113-135 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse Sonic Hedgehog/Shh (C25II), N-Terminus (Catalog # 464-SH) is immobilized at 4 µg/mL (100 µL/well), Recombinant Mouse CDO His-tag (Catalog # 10505-CD) binds with an ED_{50} of 0.8-8 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in 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. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

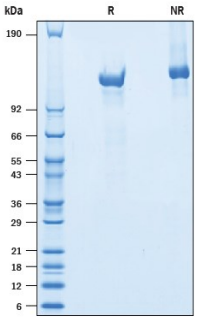
DATA

Binding Activity



When Recombinant Mouse Sonic Hedgehog/Shh (C25II) N-Terminus (Catalog # 464-SH) is immobilized at 4 µg/mL (100 µL/well), Recombinant Mouse CDO His-tag (Catalog # 10505-CD) binds with an ED_{50} of 0.8-8 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Mouse CDO His-tag Protein (Catalog # 10505-CD) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 113-135 kDa.

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BACKGROUND

CAM-related/down-regulated by oncogene (CDO), also known as CDON is a member of the Ig/Fibronectin (FN) type III repeat family within the Ig superfamily. Mouse CDO is a type I transmembrane protein, consisting of a large extracellular domain (ECD), a transmembrane segment and a cytoplasmic region. The ECD contains five C2-type Ig-like domains, followed by three FN type III repeats (1). The first FN repeat is known to bind numerous cadherins, while the third (or juxtramembrane) FN type III repeat binds SHH (2, 3). The mature ECD of mouse CDO shares 85% amino acid identity to the ECD of human CDO. CDO is found on muscle precursor and neural progenitor cells of the embryo (4-6). It likely promotes muscle differentiation and contributes to axon guidance and neuronal patterning by signaling through various bHLH transcription factors (2, 5). 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 (4, 7). 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 (8-10).

References:

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