10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CDON Rabbit pAb

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Catalog # AP54824

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q4KMG0
Predicted	Rat, Dog, Human, Mouse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	139147
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CDON
Epitope Specificity	101-200/1287
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell Membrane
DISEASE	Defects in CDON are the cause of holoprosencephaly type 11 (HPE11) [MIM:614226]. HPE11 is a structural anomaly of the brain, in which the developing forebrain fails to correctly separate into right and left hemispheres. Holoprosencephaly is genetically heterogeneous and associated with several distinct facies and phenotypic variability.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cell adhesion molecule-related/down-regulated by oncogenes (CDO) and BOC (brother of CDO) are members of the immunoglobulin/fibronectin type III repeat family and act as cell surface receptors. CDO is a component of a cell-surface receptor complex which also contains BOC, NEO1, CTNNB1 and cadherins and which acts as a mediator of cell-cell interactions between muscle cells. CDO and BOC are single pass membrane proteins that play a role in myogenic cell differentiation. Together, CDO and BOC participate in a positive feedback loop with MyoD, a myogenic transcription factor. The 1,242 amino acid rat CDO protein has a 24 residue signal sequence, five Ig V-like repeats, a 25 residue membrane-spanning region, three FNIII-like repeats and a cytoplasmic region of 256 amino acids containing a proline-rich stretch. The human protein contains 1,225 amino acid residues and shares significant homology with the domain structures of the rat protein.

Additional Information

Gene ID	50937
Other Names	Cell adhesion molecule-related/down-regulated by oncogenes, CDON, CDO
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500

	0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CDON {ECO:0000303|PubMed:21802063, ECO:0000312|HGNC:HGNC:17104}
Function	Together with BOC, forms a coreceptor required for sonic hedgehog (SHH) handoff to its patched receptor (PTCH1 or PTCH2), thereby allowing activation of the smoothened signaling pathway (By similarity). Binds to the dually lipid-modified Sonic hedgehog protein N-product (ShhN) downstream of SCUBE2 carrier and promotes its release to GAS1 (By similarity). ShhN is then directly transferred to patched receptor by GAS1 (By similarity). May also mediate cell-cell interactions between muscle precursor cells, promoting differentiation of myogenic cells (By similarity).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:O35158}; Single-pass membrane protein

Background

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