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CD320 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13137b

Product Information

Application	WB, E
Primary Accession	Q9NPF0
Other Accession	NP_001159367.1, NP_057663.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32506
Calculated MW	28991
Antigen Region	153-182

Additional Information

Gene ID	51293
Other Names	CD320 antigen, 8D6 antigen, FDC-signaling molecule 8D6, FDC-SM-8D6, Transcobalamin receptor, TCblR, CD320, CD320, 8D6A
Target/Specificity	This CD320 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 153-182 amino acids from the C-terminal region of human CD320.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CD320 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD320
Synonyms	8D6A
Function	Receptor for transcobalamin saturated with cobalamin (TCbl)

	(PubMed:18779389). Plays an important role in cobalamin uptake (PubMed:18779389, PubMed:20524213). Plasma membrane protein that is expressed on follicular dendritic cells (FDC) and mediates interaction with germinal center B cells (PubMed:10727470). Functions as costimulator to promote B cell responses to antigenic stimuli; promotes B cell differentiation and proliferation (PubMed:10727470, PubMed:11418631). Germinal center-B (GC-B) cells differentiate into memory B-cells and plasma cells (PC) through interaction with T-cells and follicular dendritic cells (FDC) (PubMed:11418631). CD320 augments the proliferation of PC precursors generated by IL-10 (PubMed:11418631).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Detected in the germinal center (GC) of lymphoid follicles (at protein level) (PubMed:11418631). Expressed abundantly on follicular dendritic cells (FDCs) (PubMed:10727470)

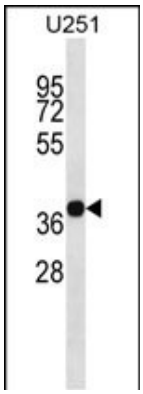
Background

The CD320 antigen gene encodes the transcobalamin receptor (TCBLR). Cellular uptake of cobalamin (vitamin B12) is mediated by receptors expressed on the cell surface. Transcobalamin II (TCN2; MIM 613441), a plasma protein secreted by endothelial cells, binds the cobalamin absorbed in the distal ileum and carries 10 to 30% of total circulating cobalamin. CD320 encodes a transcobalamin receptor that binds TCN2-cobalamin at the plasma membrane and internalizes the complex by endocytosis (Quadros et al., 2009 [PubMed 18779389]).

References

Jiang, W., et al. Gene 466 (1-2), 49-55 (2010) :
Pangilinan, F., et al. J. Med. Genet. 47(10):677-685(2010)
Quadros, E.V., et al. Hum. Mutat. 31(8):924-929(2010)
Quadros, E.V., et al. Blood 113(1):186-192(2009)
Cho, W., et al. BMB Rep 41(12):863-867(2008)

Images



CD320 Antibody (C-term) (Cat. #AP13137b) western blot analysis in U251 cell line lysates (35ug/lane).This demonstrates the CD320 antibody detected the CD320 protein (arrow).