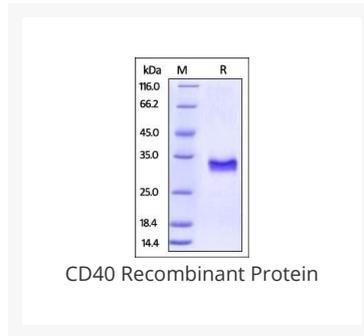




CD40 Recombinant Protein

Cat. No.: 97-060



Ψ Specifications

SPECIES:	Rhesus monkey
SOURCE SPECIES:	HEK293 cells
SEQUENCE:	Glu 21 - Arg 193
FUSION TAG:	His Tag
TESTED APPLICATIONS:	WB
APPLICATIONS:	This recombinant protein can be used for WB. For research use only.
PREDICTED MOLECULAR WEIGHT:	21.1 kDa

Ψ Properties

PURITY:	>95% as determined by SDS-PAGE. Endotoxin level is less than 1.0 EU per ug by the LAL method.
PHYSICAL STATE:	Lyophilized
BUFFER:	PBS, pH7.4

STORAGE CONDITIONS:	Lyophilized Protein should be stored at -20°C or lower for long term storage. Upon reconstitution, working aliquots should be stored at -20°C or -70°C. Avoid repeated freeze-thaw cycles.
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Ψ Additional Info

OFFICIAL SYMBOL:	CD40
ALTERNATE NAMES:	CD40,Bp50,CDW40,MGC9013,TNFRSF5,p50
ACCESSION NO.:	NP_001252791.1
GENE ID:	707749

Ψ Background and References

BACKGROUND:	CD40 is also known as TNFRSF5, Bp50, CDW40, MGC9013, TNFRSF5 and p50, is a member of the TNF receptor superfamily which are single transmembrane-spanning glycoproteins, and plays an essential role in mediating a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation. CD40 is a costimulatory protein found on antigen presenting cells and is required for their activation. The binding of CD154 (CD40L) on TH cells to CD40 activates antigen presenting cells and induces a variety of downstream effects. CD40 contains 4 cysteine-rich repeats in the extracellular domain, and is expressed in B cells, dendritic cells, macrophages, endothelial cells, and several tumor cell lines. The extracellular domain has the cysteine-rich repeat regions, which are characteristic for many of the receptors of the TNF superfamily. Interaction of CD40 with its ligand, CD40L, leads to aggregation of CD40 molecules, which in turn interact with cytoplasmic components to initiate signaling pathways. Early studies on the CD40-CD40L system revealed its role in humoral immunity. Defects in CD40 result in hyper-IgM immunodeficiency type 3 (HIGM3), an autosomal recessive disorder characterized by an inability of B cells to undergo isotype switching, as well as an inability to mount an antibody-specific immune response, and a lack of germinal center formation.
REFERENCES:	1) Banchereau, J. et al., 1994, Annu. Rev. Immunol. 12: 881-922.
	2) Ni, C.Z. et al., 2000, Proc. Natl. Acad. Sci. U.S.A. 97: 10395-10399.
	3) Ferrari.S. et al., 2001, Proc. Natl. Acad. Sci. U.S.A. 98: 12614-12619.
	4) Bhushan, A and Covey, L.R. 2001, Immunol. Res. 24: 311-324.

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