Rabbit Anti-Human CD40 Molecule, TNF Receptor Superfamily Member 5 Monoclonal Antibody

Cat. No. CAB11500RH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Rabbit monoclonal antibody to human CD40 molecule, TNF receptor superfamily member 5.
Species	Human
Source	Rabbit
Antigen Description	Human tumor necrosis factor receptor superfamily member 5, also known as CD40 and TNFRSF5, 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 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 cognate interaction between CD40 and CD40 ligand (CD154) on T cells activates NF-kappa B, Jun N-terminal kinase, and Janus kinase signal transducers and activators of transcription pathways. Several different TRAF proteins (Adaptor proteins) have been identified to serves as mediators of the signal transduction. In addition, CD40 / CD40L interaction is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis. 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

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	antibody-specific immune response, and a lack of germinal center formation.
Specificity	Human CD40 / TNFRSF5 / Bp50. No cross-reactivity in ELISA with Human CD27 / TNFRSF7, Mouse CD27 / TNFRSF7, Human CD30 / TNFRSF8, Human DR6 / TNFRSF21, Human CD137 / 4-1BB, Human TNFRSF1B / CD120b, Human HVEM / TNFRSF14, Mouse HVEM / TNFRSF14,Human RELT / TNFRSF19L, Human cell lysate (293 cell line).
Immunogen	Recombinant human CD40 protein
Isotype	Rabbit IgG
Clone	5
Applications	Western Blot; ELISA
Dilution	Western blot: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human CD40 in WB. Using a DAB detection system, the detection limit for human CD40 is approximately 0.5 ng/lane under non-reducing conditions. Use of this antibody under reducing conditions is not recommended.Direct ELISA: This antibody can be used at 0.1- 0.2 µg/mL with the appropriate secondary reagents to detect human CD40. The detection limit for human CD40 is 0.0049 ng/well.
Preparation	This antibody was obtained from a rabbit immunized with purified, human cell-derived, recombinant human CD40 extracellular domain.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	activity. Antibody products are stable for twelve months from date of receipt when stored at -20 °C to -70 °C. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	CD40 CD40 molecule, TNF receptor superfamily member 5 [Homo sapiens]
Official Symbol	CD40
Synonyms	CD40; CD40 molecule, TNF receptor superfamily member 5; TNFRSF5,tumor necrosis factor receptor superfamily, member 5; tumor necrosis factor receptor superfamily member 5; Bp50; p50; CD40L receptor; CD40 type II isoform; B cell-associated molecule; B cell surface antigen CD40; B-cell surface antigen CD40; CD40 antigen (TNF receptor superfamily member 5); tumor necrosis factor receptor superfamily, member 5; nerve growth factor receptor-related B-lymphocyte activation molecule; CDW40; TNFRSF5; MGC9013;
Gene ID	958
mRNA Refseq	NM_001250
Protein Refseq	NP_001241
MIM	109535
UniProt ID	P25942
Chromosome Location	20q12-q13.2

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Pathway	Adaptive Immune System, organism-specific biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Asthma, organism-specific biosystem; Asthma, conserved biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem;
Function	enzyme binding; protein binding; receptor activity; signal transducer activity;

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA