CD90 Antibody – Rat Monoclonal

PRODUCT OVERVIEW

Product Name	CD90, Monoclonal Antibody
Full Product Name	Anti-Mouse CD90 In Vivo Antibody - Ultra Low Endotoxin (T24/31)
Product Gene Name	anti-CD90 antibody
Product Synonym Names	Thy-1; Thy1
Clonality	Monoclonal
Isotype	Rat IgG2b Kappa
Clone Number	T24/31
Host	Rat
Species Reactivity	Mouse
Form/Format	0.01 M phosphate buffered saline (PBS) pH 7.2, 150 mM NaCl with no carrier protein, potassium or preservatives added.
Purity/Purification	>98% by SDS-PAGE and HPLC
Concentration	1.0-5.0mg/ml (lot specific)
Specificity	Anti-CD90 In Vivo Antibody - Ultra Low Endotoxin (T24/31) recognizes a non-polymorphic (Mr 25-30 kD) determinant on the Thy1.1 and Thy1.2 alloantigens.
Preparation and Storage	anti-CD90 In Vivo Antibody - Ultra Low Endotoxin (T24/31) is stable for at least one week when stored sterile at 2-8 degree C. For long term storage aseptically aliquot in working volumes without diluting and store at -80 degree C. Avoid Repeated Freeze Thaw Cycles.
Matching Pairs	Antibody: CD90 Clone #T24/31 (MBS3030073) Isotype Control: IgG2b Clone #2024-01-02 (MBS3030254)
Molecular Weight	18,080 Da
3D Structure	ModBase 3D Structure for P01831
GMP	Manufactured according to cGMP (Current Good Manufacturing Practice) standards.
Endotoxin	<= 0.75 EU/mg as determined by the LAL method
Immunogen	Mouse Thy-1 protein
Aggregation	Aggregation level <= 1%
Antigen Distribution	The CD90 Thy-1 antigen is present on thymocytes, peripheral T-cells and some intraepithelial T-lymphocytes of all mouse strains tested.
IMPACT Pathogen Test	We use the IMPACT test generated by IDEXX Laboratories to guarantee our Ultra Low Endotoxin antibodies are pathogen free. Our rat antibodies are tested for: Mycoplasma spp Mycoplasma pulmonis Pneumonia virus of mice Kilham's rat virus Toolan's H1 virus Rat parvovirus Lymphocytic choriomeningitis virus Rat cytomegalovirus Sendai virus Rat coronavirus Sialodacryoadenitis virus Rat minute virus Seoul virus Mouse adenovirus Reovirus 3 Rat theilovirus
Product Categories/Family for anti-CD90 antibody	Ultra Low Endotoxin; anti-mouse

Applications Tested/Suitable for anti-CD90 antibody	Western Blot (WB), Functional Assay (FUNC), Flow Cytometry (FC/FACS)
Application Notes for anti-CD90 antibody	FUNC: Anti Thy-1 is mitogenic for resting T-cells and induces IL-2 secretion from normal T-cells and T-cell hybridomas.
Related Product Information for anti-CD90 antibody	TCD90 or Thy1 is a 25-35 kDa GPI-anchored protein belonging to the Ig superfamily that is expressed by thymocytes, peripheral T cells, myoblasts, epidermal cells, and keratinocytes. The function of Thy1 is thought to play roles in regulation of cell adhesion, apoptosis, metastasis, inflammation, and fibrosis. Clone T24/31 antibody is useful for depletion of T lymphocytes.
Other Notes	Small volumes of anti-CD90 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD90 purchase	MBS3030073 is an antibody targeting CD90. Also known as Anti-Mouse CD90 In Vivo Antibody - Ultra Low Endotoxin (T24/31). Reactive in Mouse. Host: Rat.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD90. It may not necessarily be applicable to this product.

NCBI GI #	6678347
NCBI GeneID	21838
NCBI Accession #	NP_033408.1
UniProt Primary Accession #	P01831
UniProt Related Accession #	P01831
GenBank Nucleotide #	NM_009382.3
NCBI Official Full Name	thy-1 membrane glycoprotein preproprotein
NCBI Official Synonym Full Names	thymus cell antigen 1, theta
NCBI Official Symbol	Thy1
NCBI Official Synonym Symbols	T25; CD90; Thy-1; Thy1.1; Thy1.2; Thy-1.2
UniProt Protein Name	Thy-1 membrane glycoprotein
UniProt Synonym Protein Names	Thy-1 antigen; CD_antigen: CD90
Protein Family	Thy-1 membrane glycoprotein
UniProt Gene Name	Thy1
UniProt Synonym Gene Names	Thy-1
UniProt Entry Name	THY1_MOUSE
NCBI Protein Information	thy-1 membrane glycoprotein; Thy 1.2; thy-1 antigen
NCBI Summary for CD90	This gene encodes a glycoprotein that is anchored to the cell surface of thymocytes, neuronal and other cells through a glycosyl-phosphatidylinositol moiety. A soluble form of the encoded protein has also been detected in serum and cerebrospinal fluid. The encoded protein undergoes further processing to generate the mature protein which mediates cell-cell interactions to trigger downstream signaling pathways. [provided by RefSeq, Jul 2015]

UniProt Comments for CD90	THY1: May play a role in cell-cell or cell-ligand interactions during synaptogenesis and other events in the brain. Protein type: Motility/polarity/chemotaxis; Membrane protein, GPI anchor; Cell adhesion Cellular Component: focal adhesion; cell surface; endoplasmic reticulum; dendrite; cytosol; lipid raft; anchored to external side of plasma membrane; growth cone; anchored to plasma membrane; membrane; apical plasma membrane; plasma membrane; myelin sheath; external side of plasma membrane Molecular Function: integrin binding; enzyme binding; protein kinase binding Biological Process: focal adhesion formation; negative regulation of T cell receptor signaling pathway; cytoskeleton organization and biogenesis; T cell receptor signaling pathway; cell-cell adhesion; retinal cone cell development; negative regulation of protein kinase activity; negative regulation of axonogenesis; positive regulation of T cell activation; positive regulation of release of sequestered calcium ion into cytosol; angiogenesis; negative regulation of cell migration; positive regulation of GTPase activity
Research Articles on CD90	**1.** TLR4 activation enhances the PD-L1-mediated tolerogenic capacity of colonic CD90+ stromal cells.
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