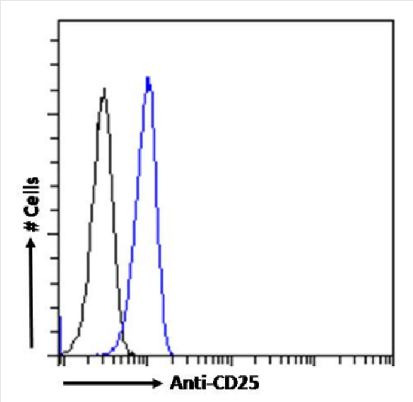
CD25 Recombinant Antibody – Rabbit Monoclonal

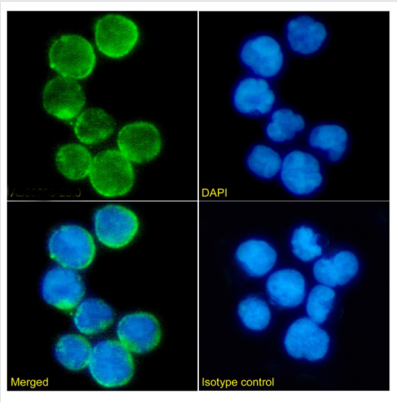
PRODUCT OVERVIEW

Product Name	CD25, Recombinant Antibody
Full Product Name	Anti-CD25 [7G7/B6], Rabbit IgG, kappa
Product Gene Name	CD25 recombinant antibody
Product Synonym Names	CD25; Anti-CD25 [7G7/B6]; IL2-RA; Interleukin-2 receptor subunit alpha; IL-2-RA; IL-2R subunit alpha; TAC antigen; p55; Receptor for interleukin-2
Clonality	Monoclonal
Isotype	Rabbit IgG kappa
Clone Number	7G7/B6
Host	Rabbit
Species Reactivity	Human
Form/Format	PBS with 0.02% Proclin 300.
Purity/Purification	Protein A affinity purified
Concentration	1mg/ml (lot specific)
Specificity	This antibody is specific for human interleukin 2 (IL2) receptor alpha (IL2RA), which is expressed by activated T cells. IL2R alpha chains can exist as low-affinity monomers, or can non-covalently associate with IL2R beta chains to form high-affinity dimers.
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.
Molecular Weight	30,819 Da
Chromosome Location	Chromosome: 10; NC_000010.10 (6052657..6104333, complement). Location: 10p15-p14
OMIM	147730
3D Structure	ModBase 3D Structure for P01589
Animal-free Manufacturing Platform	The recombinant antibody is manufactured using a recombinant, mammalian HEK293-based expression platform. The manufacturing platform is animal-free and animal component-free.
Chimeric Use Statement	This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG2a format, for improved compatibility with existing reagents, assays and techniques.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for CD25 recombinant antibody	Immunofluorescence (IF), Flow Cytometry (FC/FACS), Immunoprecipitation (IP), ELISA (EIA)

Application Notes for CD25 recombinant antibody	This antibody recognises human IL2RA, as confirmed by immunofluorescence, FACS and immunoprecipitation analysis (Rubin et al, 1985). Sequential immunoprecipitations have shown that 7G7/B6 binds to the same 50-55 kD surface molecule as anti-Tac, a murine mAb specific for the human IL-2 receptor. However, 7G7/B6 does not compete with IL-2 and anti-Tac for binding to IL2R expressed by activated PBMCs, indicating that 7G7/B6 recognises a distinct epitope on IL2R. 7G7/B6, therefore, recognises a different epitope on IL-2Ralpha to the humanised anti-Tac monoclonal antibody daclizumab (Zhang et al, 2006). Equally, although 7G7/B6 binds to a different epitope on IL2 Ralpha to IL-2, and is, therefore, unable to block IL-2/IL2 Ralpha interaction, 7G7/B6 is still able to delay tumour progression and prolong survival in mouse models of adult T-cell leukaemia (ATL) (Phillips et al, 2000), likely by FcR-mediated death by FcRIII-expressing cells. Administration of 7B7/B6 radiolabelled with astatine-211 (211At-7G7/B6) to karpas299 leukaemia-bearing mice significantly increased survival, highlighting the potential therapeutic role for 211At-7G7/B6 in the treatment of patients with CD25-expressing leukaemias (Zhang et al, 2006). Indeed, 211At-7G7/B6 in combination with daclizumab induces significant long-term survival in murine models of adult T-cell leukaemia (Zhang et al, 2006). Additionally, 7G7/B6 armed with Yttrium-90 (90Y) significantly extends the survival of SUDHL-1 lymphoma-bearing mice significantly (Zhang et al, 2009), and presents another option for combination therapy with daclizumab. 7G7/B6 has been used in flow cytometric measurements of energy transfer efficiencies between FITC- and Cy3-conjugated mAbs bound to IL-2Ralpha, beta, and gamma subunits on Kit 225 K6 T cells, revealing that IL-2R subunits are preassembled on resting cells (Damjanovich et al, 1997). This antibody has also been used in an ELISA to assess serum levels of IL-2R (Uziel et al, 1994).
Related Product Information for CD25 recombinant antibody	This antibody was raised by injecting mice intraperitoneally and subcutaneously with Hong Kong influenza virus-stimulated PBMC, which express human IL-2 receptor alpha. Immune splenocytes were subsequently fused with SP2/0 cells to produce stable hybridomas.
Product References and Citations for CD25 recombinant antibody	Rubin et al A Monoclonal Antibody 7G7/B6, Binds to an Epitope on the Human Interleukin-2 (IL-2) Receptor That is Distinct From That Recognized by IL-2 or Anti-Tac HYBRIDOMA Volume 4, No. 2, 1985, Mary Ann Liebert, Inc., Publishers N/A2408992 Note on publication: Describes the original generation and characterisation of this antibody.
Other Notes	Small volumes of CD25 recombinant 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 CD25 purchase	MBS489345 is a recombinant antibody targeting CD25. Also known as Anti-CD25 [7G7/B6], Rabbit IgG, kappa. Reactive in Human. Host: Rabbit.



FlowCytometry(FC/FACS) of CD25 recombinant antibody
FlowcytometryusingtheAnti-CD25antibody7G7/B6(MBS489345). ParaformaldehydefixedMolt4cellspermeabilizedwith0.5%Tritonwerestainedwithanti-unknownspecificityantibodyortherabbitIgGversionof7G7/B6(MBS489345,blueline)atadilutionof1:100for1hatRT.Afterwashing,theboundantibodywasdetectedusingagoatanti-rabbitIgGAlexaFluor488antibodyatadilutionof1:1000andcellsanalyzedusingaFACSCantoflow-cytometer.



Immunofluorescence(IF) of CD25 recombinant antibody
ImmunofluorescencestainingofMolt4cellswithanti-CD25(MBS489345)7G7/B6 ImmunofluorescenceanalysisofparaformaldehydefixedMolt4cellsonShi-fixcover-slipsstainedwiththechimericrabbitIgGversionof7G7/B6(MBS489345)(1:100dilution)for1hfollowedbyAlexaFluor488secondaryantibody(1:1000dilution),showingmembranestaining.ThenuclearstainisDAPI(blu
right,top-bottomMBS489345,DAPI,mergedchannelsandanisotypecontrol.TheisotypecontrolwasanunknownspecificityantibodyfollowedbystainingwithAlexaFluor488secondaryantibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD25. It may not necessarily be applicable to this product.

NCBI GI #	4557667
NCBI GeneID	3559
NCBI Accession #	NP_000408.1
UniProt Primary Accession #	P01589
UniProt Secondary Accession #	Q5W007
UniProt Related Accession #	P01589
GenBank Nucleotide #	NM_000417.2
NCBI Official Full Name	interleukin-2 receptor subunit alpha
NCBI Official Synonym Full Names	interleukin 2 receptor, alpha
NCBI Official Symbol	IL2RA
NCBI Official Synonym Symbols	CD25; IL2R; TCGFR; IDDM10
UniProt Protein Name	Interleukin-2 receptor subunit alpha
UniProt Synonym Protein Names	TAC antigen; p55
Protein Family	Interleukin-2 receptor
UniProt Gene Name	IL2RA
UniProt Synonym Gene Names	IL-2 receptor subunit alpha; IL-2-RA; IL-2R subunit alpha; IL2-RA
UniProt Entry Name	IL2RA_HUMAN
NCBI Protein Information	interleukin-2 receptor subunit alpha; p55; IL2-RA; IL-2-RA; TAC antigen; IL-2R subunit alpha; IL-2 receptor subunit alpha
NCBI Summary for CD25	The interleukin 2 (IL2) receptor alpha (IL2RA) and beta (IL2RB) chains, together with the common gamma chain (IL2RG), constitute the high-affinity IL2 receptor. Homodimeric alpha chains (IL2RA) result in low-affinity receptor, while homodimeric beta (IL2RB) chains produce a medium-affinity receptor. Normally an integral-membrane protein, soluble IL2RA has been isolated and determined to result from extracellular proteolyisis. Alternately-spliced IL2RA mRNAs have been isolated, but the significance of each is presently unknown. Mutations in this gene are associated with interleukin 2 receptor alpha deficiency.[provided by RefSeq, Nov 2009]

UniProt Comments for CD25	IL2RA: Receptor for interleukin-2. Non-covalent dimer of an alpha and a beta subunit. IL2R exists in 3 different forms: a high affinity dimer, an intermediate affinity monomer (beta subunit), and a low affinity monomer (alpha subunit). The high and intermediate affinity forms also associate with a gamma subunit. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 10p15-p14 Cellular Component: integral to membrane; plasma membrane; external side of plasma membrane Molecular Function: interleukin-2 receptor activity; drug binding; interleukin-2 binding Biological Process: Notch signaling pathway; regulation of T cell homeostatic proliferation; apoptosis; negative regulation of immune response; negative regulation of defense response to virus; positive regulation of activated T cell proliferation; cell proliferation; negative regulation of T cell proliferation; inflammatory response to antigenic stimulus; cell surface receptor linked signal transduction; positive regulation of T cell differentiation; negative regulation of inflammatory response; immune response; inflammatory response; activated T cell apoptosis Disease: Interleukin 2 Receptor, Alpha, Deficiency Of; Diabetes Mellitus, Insulin-dependent, 10
Research Articles on CD25	**1.** rs7072793 C > T genetic variation in CD25 genes may be genetic modifier for developing breast cancer in Chinese population
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