

Rabbit anti-Mouse CD25 Antibody | anti-CD25 antibody

Anti-CD25 [7D4], Rabbit IgG

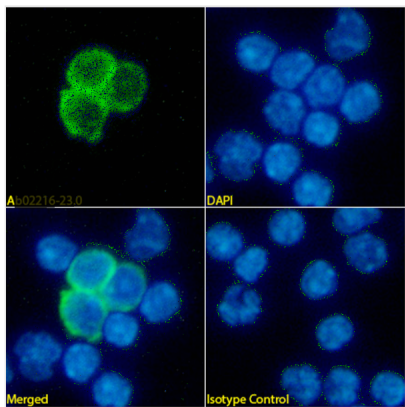
CATALOG # AAA72279	HOST Rabbit	REACTIVITY Mouse	APPLICATIONS Flow Cytometry, Functional Assay
------------------------------	-----------------------	----------------------------	---

PRODUCT SYNONYMS

CD25; Anti-CD25 [7D4]; Rabbit IgG; IL-2-RA; Interleukin-2 receptor subunit alpha; IL-2 receptor subunit alpha; IL-2R subunit alpha; IL2-RA; p55; anti-CD25 antibody

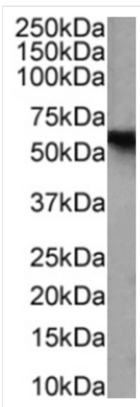
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse
Isotype	Rabbit IgG, Kappa
Clone Number	7D4
Specificity	7D4 recognizes mouse CD25 at an epitope comprising amino acid 184 to 194 (REHHRFLASEE). This epitope is distinct from the IL-2 binding site and does not block binding of IL-2 to CD25. Murine CD25 is a 55 kDa interleukin-2 receptor alpha chain (IL-2R alpha). CD25 is expressed by early progenitors of the T and B lineage as well as by activated mature T and B lymphocytes. By itself, CD25 binds IL-2 only with low affinity. However, CD25 associates with CD122 (IL-2 receptor beta chain) and CD132 (common gamma chain) to form the high affinity IL-2 receptor.
Purity/Purification	Protein A affinity purified
Form/Format	PBS with 0.02% Proclin 300.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CD25 antibody	FCM/FACS (Flow Cytometry)
Immunogen	The original rat IgM version of this antibody was raised by immunizing Lewis rats with HT2 cells in complete Freund's adjuvant via a intraperitoneal injection and subsequent generation of hybridomas.
Chimeric Use Statement	This chimeric rabbit antibody was made using the variable domain sequences of the original Rat IgM format, for improved compatibility with existing reagents, assays and techniques.
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.



IF (Immunofluorescence)

Immunofluorescence staining of mouse splenocytes with anti-CD25 (AAA72279) 7D4. Immunofluorescence analysis of paraformaldehyde fixed mouse splenocytes stained with the chimeric rabbit IgG version of 7D4 (AAA72279-23.0) (1:1000 dilution) for 1h followed by Alexa Fluor 488 secondary antibody (1:1500 dilution), showing nuclear staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom AAA72279-23.0, DAPI, merged channels and an isotype control. The isotype control was anti-fluorescein antibody followed by staining with Alexa Fluor 488 secondary antibody.



WB (Western Blot)

Western Blot using anti-CD25 antibody 7D4 (AAA72279). Mouse thymus (0.5ug/ml) tissue lysate (35ug protein in RIPA buffer) was resolved on a SDS PAGE gel and blots were probed with the chimeric rabbit version of 7D4 (AAA72279-23.0) before detection using an anti-rabbit secondary antibody. A primary incubation of 1h was used and protein was detected by chemiluminescence.

ADDITIONAL INFORMATION

Related Product Information for anti-CD25 antibody	7D4 is a non-IL-2 blocking anti-CD25 antibody that has been widely used to identify CD25-positive cells via flow cytometry (Kohyama et al., 2012; pmid: 22399592), for instance, to analyse Lymph node cells from BALB/c mice that were untreated or treated with 0.25 mg PC61 (Onizuka et al., 1999; pmid: 10397255) or to characterize brain-infiltrating immune cells (Maes et al., 2013). Although 7D4 does not inhibit IL-2 binding itself, it shows synergistic qualities with a cancer vaccine; namely, 7D4 with a cancer vaccine boosted the vaccine-induced anti-tumour response. Furthermore, this antibody was shown to be able to induce inactivation of regulatory T cells (Treg); the effect was particularly significant when this clone was used synergistically with another anti-CD25 clone - PC61 (Kohm et al., 2006; pmid: 16517695; McNeill et al., 2007; pmid: 17212768). 7D4, when turned into a mouse IgG2a format, exhibits depleting qualities against Treg cells and can be used to remove Treg lymphocytes from the tumoral environment without blocking CD25 (IL-2 pathway) on T effector cells (Solomon et al., 2020). As a result, it can be utilized as a potential immunotherapy agent achieving Treg depletion without T effector cells' debilitation (Solomon et al., 2020). Finally, it was demonstrated that such anti-CD25 non-IL-2 blocking antibodies are successful agents in promoting effector activation and leading to strong antitumor activity (Solomon et al., 2020).
Product Categories/Family for anti-CD25 antibody	immunology; Tcells; interleukin
References	Malek et al. Identification and initial characterization of a rat monoclonal antibody reactive with the murine interleukin 2 receptor-ligand complex Proc Natl Acad Sci U S A. 1983 Sep;80(18):5694-8. doi: 10.1073/pnas.80.18.5694. PMID:6412230

NCBI AND UNIPROT INFORMATION

NCBI GI #	124318
NCBI GeneID	16184
UniProt Accession #	P01590; Q61731
Molecular Weight	30,723 Da
NCBI Official Full Name	Interleukin-2 receptor subunit alpha
NCBI Official Synonym Full Names	interleukin 2 receptor, alpha chain
NCBI Official Symbol	IL2ra
NCBI Official Synonym Symbols	CD25; IL2r; Ly-43

NCBI Protein Information	interleukin-2 receptor subunit alpha; IL2-RA; IL-2-RA; p55 chain; IL-2R alpha chain; IL-2R subunit alpha; IL-2 receptor subunit alpha
UniProt Protein Name	Interleukin-2 receptor subunit alpha
UniProt Gene Name	IL2ra
UniProt Synonym Gene Names	IL2r; IL-2 receptor subunit alpha; IL-2-RA; IL-2R subunit alpha; IL2-RA
UniProt Entry Name	IL2RA_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/rabbit-mouse-antibody/cd25/72279>