Human CD25/IL-2R alpha Alexa Fluor® 405-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 1037230

Catalog Number: FAB10202V

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD25/IL-2R alpha in ELISA.
Source	Monoclonal Mouse IgG_1 Clone # 1037230
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human CD25/IL-2R alpha Glu22-Cys213 Accession # P01589
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Neutralization	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

IL-2 receptor alpha (IL-2R alpha), also known as CD25, is a 55 kDa type I membrane glycoprotein that belongs to the family of cytokine receptors that utilize the common gamma chain subunit (gamma c). Human IL-2R alpha cDNA encodes a 213 amino acid (aa) precursor with a 21 aa signal peptide and a 192 aa extracellular region. The ECD of Human IL-2R alpha shares a 59% amino acid sequence identity with the ECD of mouse and rat IL-2R alpha, respectively. IL-2R alpha is primarily expressed on activated T cells and on regulatory T cells (Treg) (1-3). IL-2R beta (CD122) and γc (IL-2R gamma /CD132) dimerize to form a constitutively expressed intermediate affinity IL-2 receptor (4, 5). By itself, IL-2R alpha binds IL-2 with low affinity. IL-2R alpha makes no contacts with IL-2R beta or γc, and only minor changes are observed in the IL-2 structure in response to receptor binding. These findings support the principal role of IL-2R alpha to deliver IL-2 to the signaling complex and act as regulator of signal transduction (6, 7). A soluble form of IL-2R alpha can be generated by proteolytic cleavage of the cell surface receptor, rendering the T cell unresponsive to IL-2 (8, 9). Increased serum levels of soluble IL-2R alpha are found in some cancers and immune disorders (10). IL-2R alpha is required for activation induced cell death (AICD) of naive T cells, a mechanism responsible for deleting autoreactive T cell clones (11, 12). IL-2R alpha is also required for the development of CD4+CD25+ Treg which suppresses autoreactive CD4+ T cells, thereby contributing to peripheral T cell homeostasis (11-13).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475