

Product datasheet for TA386525

IL3RA Rabbit Monoclonal Antibody [Clone ID: 7G3]

Product data:

OriGene Technologies, Inc.

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Product Type:	Primary Antibodies
Clone Name:	7G3
Applications:	BI, FC, IP, WB
Reactivity:	Human
Host:	Rabbit
lsotype:	lgG, kappa
Clonality:	Monoclonal
Immunogen:	The original antibody was generated by intraperitoneally immunizing BALB/c mice with 5 X lo6 COS cells transfected with the IL-3R a-chain in combination with adjuvant peptides.
Specificity:	This antibody specifically binds to the IL-3R alpha-chain and completely abolishes its function. IL-3R is expressed on myeloid, lymphoid, and vascular endothelial cells, where it transduces IL-3-dependent signals leading to cell activation.
	This antagonist antibody binds IL-3Rα and blocks IL-3 binding and IL-3-mediated functions. mAb 7G3 immunoprecipitated and recognized in western blots the IL-3R α chain expressed by transfected cells and bound to primary cells expressing IL-3Rα. The expression of IL-3Rα chain on various cells types was analysed by flow cytometry using this antibody (PMID: 8547680). It is reported that 7G3 inhibits IL-3Rα and βc dimerization (PMID: 8649415). This antibody was used in the study of neutrophils expressing IL-3 receptors which are activated by granulocyte-macrophage colony-stimulating factor or GM-CSF (PMID: 7579364). The original 7G3, mouse IgG2a antibody inhibited IL-3-mediated intracellular signaling of isolated acute myeloid leukemia (AML) CD34+ CD38- cells in vitro and reduced their survival (PMID: 19570512). Humanized version of this antibody CSL362 is available on request. CSL362, retains the ability to neutralise IL-3 and has enhanced affinity for the FcγRIIIa (CD16) on NK cells. In vitro studies have demonstrated that the increased affinity for CD16 correlates with greater antibody-dependent cell-mediated cytotoxicity (ADCC) against CD123 expressing cell lines (Busfield et al., 2012). CSL362 is being accessed for use in the treatment of myeloid leukemia (PMID: 24363400, 2524888, 26130514).
Formulation:	PBS with 0.02% Proclin 300.
Concentration:	lot specific



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Conjugation:	Unconjugated
Storage:	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
Stability:	3 years from dispatch.
Gene Name:	interleukin 3 receptor subunit alpha
Database Link:	<u>Entrez Gene 3563 Human</u> P26951
Synonyms:	CD123; hIL-3Ra; IL-3R-alpha; IL3R; IL3RAY; IL3RX; IL3RY; MGC34174
Note:	This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse lgG2a format, for improved compatibility with existing reagents, assays and techniques.

Product images:



Flow cytometry using the Anti-CD123 antibody 7G3 (TA386525). Paraformaldehyde fixed U937 cells permeabilized with 0.5% Triton were stained with anti-unknown specificity antibody ([TA385792]; isotype control, black line) or the rabbit IgG version of 7G3 (TA386525, blue line) at a dilution of 1:100 for 1h at RT. After washing, the bound antibody was detected using a goat antirabbit IgG AlexaFluor® 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.

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