

Product Data Sheet

IL-4R alpha/CD124 Protein, Human (HEK293, mFc)

Cat. No.:	HY-P70325
Synonyms:	rHuInterleukin-4 receptor subunit alpha/IL-4 RA, mFc; Interleukin-4 receptor subunit alpha; IL-4 receptor subunit alpha; IL-4R subunit alpha; IL-4R-alpha; IL-4RA; CD124; IL-4-binding protein; IL4-BP; IL4R; IL4RA
Species:	Human
Source:	HEK293
Accession:	P24394 (M26-Q231)
Gene ID:	3566
Molecular Weight:	65-86 kDa

PROPERTIES					
PROPERTIES					
nce	МКVLQЕРТС	V	V SDYMSISTCE	V SDYMSISTCE WKMNGPTNCS	
	FLLSEAHTCI				
	GQQLLWKGSF				
	PYPPDNYLYN				
	I A A S T L K S G I R E P F E Q		S Y R A R V R A W A	SYRARVRAWA QCYNTTWSEW	
ppearance	Lyophilized powder.				
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.				
ndotoxin Level	<1 EU/µg, determined by LAL method.				
econsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).				
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.				
Shipping	Room temperature in cor		ntinental US;may vary elsewł	ntinental US;may vary elsewhere.	

DESCRIPTION	
Background	Interleukin-4R alpha (IL-4Rα), also known as CD124 and B cell stimulatory factor (BSF) receptor, is one of the anti- inflammatory cytokines, and highly expressed in activated T-cells ^[1] . IL-4R alpha participates in forming two interleukin receptors in different cell types. For the type I receptor, depends on IL-4R alpha binding IL-4 to recruit IL-2R gamma chain in immune cells. IL-2R gamma is the common subunit for a variety of interleukin receptors, involved in the stimulation of neutrophil phagocytosis by IL-15. For the type II receptor, depends on IL-4R alpha binding IL-4 to recruit IL-13R alpha 1 chain. IL-13R alpha 1 is an alternat accessory protein to the common

cytokine receptor gamma chain in non-immune cells^{[2][3]}.

The sequence of amino acids in IL-4R alpha proteins in human is very different from mouse (53.35%), or rat (52.82%). IL-4 R alpha generates a soluble form by alternate splicing or proteolysis, maintaining ligand binding properties and inhibiting IL-4 bioactivity. IL-4 R alpha soluble isoform 1 can be produced by proteolytic cleavage at the cell surface (shedding) by a metalloproteinase^[4].

IL-4 R alpha plays an important role in Th2-biased immune responses, alternative macrophage activation, mucosal immunity, allergic inflammation, tumor progression, and atherogenesis^[5].

REFERENCES

[1]. Keegan AD, et al. An IL-4 receptor region containing an insulin receptor motif is important for IL-4-mediated IRS-1 phosphorylation and cell growth. Cell. 1994 Mar 11;76(5):811-20.

[2]. Zurawski SM, et al. The primary binding subunit of the human interleukin-4 receptor is also a component of the interleukin-13 receptor. J Biol Chem. 1995 Jun 9;270(23):13869-78.

[3]. Rolling C, et al. IL4 and IL13 receptors share the gamma c chain and activate STAT6, STAT3 and STAT5 proteins in normal human B cells. FEBS Lett. 1996 Sep 9;393(1):53-6.

[4]. Jung T, et al. Soluble human interleukin-4 receptor is produced by activated T cells under the control of metalloproteinases. Int Arch Allergy Immunol. 1999 May;119(1):23-30.

[5]. HageT, et al. Crystal structure of the interleuk in-4/receptoral phacha in complex reveals a mosaic binding interface. Cell. 1999 Apr 16;97(2):271-81.

[6]. Kashiwada M, et al. Immunoreceptor tyrosine-based inhibitory motif of the IL-4 receptor associates with SH2-containing phosphatases and regulates IL-4-induced proliferation. J Immunol. 2001 Dec 1;167(11):6382-7.

[7]. Jung T, et al. Soluble human interleukin-4 receptor is produced by activated T cells under the control of metalloproteinases. Int Arch Allergy Immunol. 1999 May;119(1):23-30.

[8]. Myburgh E, et al. Murine IL-4 is able to signal via chimeric human IL-4Ralpha/mouse gamma-chain receptor. Mol Immunol. 2008 Mar;45(5):1327-36.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA