Datasheet for ABIN7490679

IL-9 Protein (AA 19-144) (Fc Tag)

2 Images

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Overview

Quantity:	100 µg
Target:	IL-9 (IL9)
Protein Characteristics:	AA 19-144
Origin:	Cynomolgus
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IL-9 protein is labelled with Fc Tag.

Product Details

Purpose:	Recombinant Cynomolgus IL9 protein with C-terminal human Fc tag
Specificity:	IL9 (Arg19-Ile144) hFc (Glu99-Ala330)
Characteristics:	Extracellular Domain Protein
Purification:	Purified from cell culture supernatant by affinity chromatography
Purity:	The purity of the protein is greater than 95 % as determined by SDS-PAGE and Coomassie blue staining.

Target Details

Target:	IL-9 (IL9)
Alternative Name:	IL9 (IL9 Products)
Background:	Interleukin 9, also known as IL-9, is a cytokine (cell signaling molecule) belonging to the group

Target Details

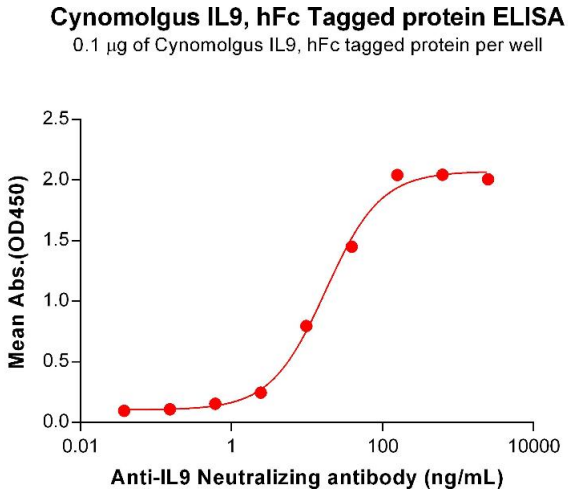
	of interleukins. IL-9 is a cytokine that acts as a regulator of a variety of hematopoietic cells. This cytokine stimulates cell proliferation and prevents apoptosis. It functions through the interleukin 9 receptor (IL-9R), which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. Genetic studies on a mouse model of asthma demonstrated that this cytokine is a determining factor in the pathogenesis of bronchial hyperresponsiveness. IL-9 is a key molecule that affects the differentiation of TH17 cells and Treg function. IL-9 predominantly produced by TH17 cells synergizes with TGF-β1 to differentiate naive CD4 T cells into TH17 cells, while IL-9 secretion by TH17 cells is regulated by IL-23. Interestingly, IL-9 enhances the suppressive functions of FoxP3 CD4 Treg cells in vitro, and the absence of IL-9 signaling weakens the suppressive activity of nTregs in vivo, leading to an increase in effector cells and worsening of experimental autoimmune encephalomyelitis. The mechanism of IL-9 effects on TH17 and Tregs is through activation of STAT3 and STAT5 signaling. Our findings highlight the role of IL-9 as a regulator of pathogenic versus protective mechanisms of immune responses.
Molecular Weight:	predicted molecular mass of 40.0 kDa after removal of the signal peptide.
UniProt:	A0A7N9IA33
Pathways:	JAK-STAT Signaling

Application Details

Restrictions:	For Research Use only

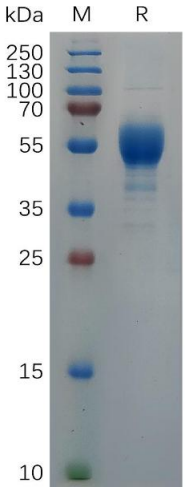
Handling

Format:	Lyophilized
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose is added as protectants before lyophilization.
Storage:	-20 °C,-80 °C
Storage Comment:	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Expiry Date:	12 months



ELISA

Image 1. ELISA plate pre-coated by 1 μg/mL (100 μL/well) Cynomolgus IL9 Protein, hFc Tag (ABIN7455417, ABIN7490677 and ABIN7490679) can bind Anti-IL9 Neutralizing antibody (ABIN7455963 and ABIN7490969) in a linear range of 2.44-156.25 ng/mL.



SDS-PAGE

Image 2. Cynomolgus IL9 Protein, hFc Tag on SDS-PAGE under reducing condition.