# abcam

# Product datasheet

# Recombinant human IL-4 protein ab83686

2 References 2 Images

**Description** 

Product name Recombinant human IL-4 protein

**Biological activity** Activity: The ED<sub>50</sub> of ab83686 is typically 0.02 - 0.2 ng/ml as measured in a cell proliferation

assay using the human growth factor-dependent TF1 cell line.

Purity > 95 % SDS-PAGE.

**Expression system** HEK 293 cells

Protein length Full length protein

Animal free No.

**Nature** Recombinant

**Species** Human

**Sequence** Theoretical Sequence:

HKCDITLQEIIKTLNSLTEQKTLCTELTVTDIFAASKNT

TEKETFCRAATVLRQFYSHHEKDTRCL

GATAQQFHRHKQLIRFLKRLD

RNLWGLAGLNSCPVKEANQSTLENFLERLKTIMREKYSKC

SS

**Specifications** 

Our **Abpromise guarantee** covers the use of **ab83686** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Functional Studies

SDS-PAGE

Form Lyophilized

**Preparation and Storage** 

Stability and Storage Shipped at 4°C. After reconstitution store at -20°C. Avoid freeze / thaw cycles.

Constituents: PBS, 1% Human serum albumin, 10% Trehalose

This product is an active protein and may elicit a biological response in vivo, handle with caution.

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#### Reconstitution

It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. Following reconstitution short-term storage at 4°C is recommended, with longer-term storage in aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.

#### **General Info**

#### **Function**

Participates in at least several B-cell activation processes as well as of other cell types. It is a costimulator of DNA-synthesis. It induces the expression of class II MHC molecules on resting B-cells. It enhances both secretion and cell surface expression of IgE and IgG1. It also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes.

#### Involvement in disease

Genetic variations in IL4 may be a cause of susceptibility to ischemic stroke (ISCHSTR) [MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors.

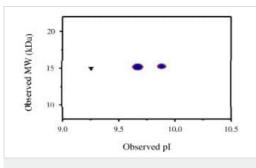
# Sequence similarities

Belongs to the IL-4/IL-13 family.

**Cellular localization** 

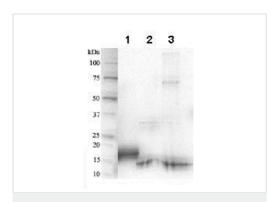
Secreted.

#### **Images**



Functional Studies - Recombinant human IL-4 protein (ab83686)

Densitometry of protein isoforms visualised by 2-DE. The triangle indicates the theoretical MW and pl of the protein.



SDS-PAGE - Recombinant human IL-4 protein (ab83686)

1D SDS-PAGE of ab83686 before and after treatment with glycosidases to remove oligosaccharides. A drop in the observed MW after treatment indicates the presence of glycosylation.

Lane 1: ab83686

Lane 2: ab83686 treated with PNGase F to remove potential N-linked glycans

Lane 3: ab83686 treated with a glycosidase cocktail to remove potential N- and O-linked glycans. 10 µg protein loaded per lane; Deep Purple™ stained.

Additional bands in lane 2 and lane 3 are glycosidase enzymes.

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