

Anti-hIL-4R-hIgG4 (S228P)

Recombinant human monoclonal IgG4 (S228P) antibody against human IL-4R

Catalog codes: hil4r-mab14, hil4r-mab14-03

<https://www.invivogen.com/anti-human-il-4r-dupilumab-biosimilar-antibody>

For research use only

Version 24L02-AK

PRODUCT INFORMATION

Contents: Anti-hIL-4R-hIgG4 (S228P) purified monoclonal antibody (mAb) is provided azide-free and lyophilized. It is available in two quantities:

hil4r-mab14: 100 µg

hil4r-mab14-03: 300 µg (3 x 100 µg)

Target: Human interleukin 4 receptor (hIL-4R)

Clone: Dupilumab, REGN-668, SAR-231893

CAS number: 1190264-60-8

Source: Chinese hamster ovary (CHO) cells

Isotype: Human IgG4 (S228P), kappa

Purification: By affinity chromatography with protein A

Formulation: 0.2 µm filtered solution in a sodium phosphate buffer with glycine, saccharose and stabilizing agents

Applications: ELISA, neutralization assays y

Antibody resuspension (0.1 mg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

Resuspend Anti-hIL-4R-hIgG4 (S228P) with sterile water:

Add 1 ml of sterile water per 100 µg vial.

Storage and stability

- Product is shipped at room temperature. Upon receipt, store at -20 °C.
- Reconstituted antibody is stable for 1 month at 4 °C and for 1 year at -20 °C. Avoid repeated freeze-thaw cycles.

Quality control

- Binding of Anti-hIL-4R-hIgG4 (S228P) to human IL-4R has been validated using cellular assays.
- The complete sequence of the antibody has been verified.
- Absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and TLR4 cellular assays.

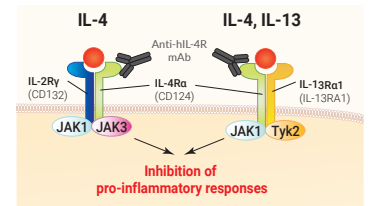
PRODUCT DESCRIPTION

Anti-hIL-4R-hIgG4 (S228P) is the biosimilar of the therapeutic monoclonal antibody (mAb) dupilumab. It features the variable region which targets the human (h) interleukin 4 receptor alpha (IL-4R α) subunit (CD124) and the human IgG4 (S228P) constant region. This mutation which on position S228P reduces Fab-arm exchange by stabilizing the disulfides in the core-hinge of the IgG4 molecules¹.

Anti-hIL-4R-hIgG4 (S228P) was generated by recombinant DNA technology, produced in CHO cells, and purified by affinity chromatography with protein A.

BACKGROUND

Dupilumab is a therapeutic, fully human monoclonal antibody (mAb) that targets the human IL-4 receptor alpha subunit (CD124) of the type I and type II IL-4 receptor¹. It acts like a receptor antagonist and inhibits signaling of both IL-4 and IL-13¹. It can target fundamental mechanisms in T helper 2 (TH2) cell inflammatory diseases by blocking TH2 cell differentiation, IgE production by B cells, alternative macrophage activation, and other hallmarks of allergic inflammatory diseases¹. According to the FDA, it is a first-in-class medication highlighting its innovative and unique mechanism of action². It has been approved to treat allergic diseases, such as atopic dermatitis (eczema), asthma, and chronic sinusitis². Due to its favorable safety profile and established clinical use, dupilumab holds significant promise for amending treatment options for a plethora of dermatologic conditions³.



- Harb H, Chatila TA, 2020. Mechanisms of Dupilumab. Clin Exp Allergy. 50(1):5-14.
- U.S. Food and Drug Administration (FDA) (Report). 2018. New Drug Therapy Approvals 2018.
- Olbrich H, et al., 2023. Dupilumab in Inflammatory Skin Diseases: A Systematic Review. Biomolecules.13(4):634.

RELATED PRODUCTS

Product	Catalog Code
HEK-Blue™ IL-4/IL-13 cells	hbk-il413
Recombinant human IL-4	rcyec-hil4
Anti-hIL-4R-hIgG1	hil4r-mab1
Anti-β-Gal-hIgG4 (S228P)	bgal-mab114

TECHNICAL SUPPORT

InvivoGen USA (Toll-Free): 888-457-5873

InvivoGen USA (International): +1 (858) 457-5873

InvivoGen Europe: +33 (0) 5-62-71-69-39

InvivoGen Asia: +852 3622-3480

E-mail: info@invivogen.com