

Anti-mIL-28b-mIgG1

Neutralizing monoclonal mouse antibody against mouse interleukin 28B

Catalog code: mil28b-mab9-02
<https://www.invivogen.com/anti-mil28b-igg>

For research use only

Version 22J24-AK

PRODUCT INFORMATION

Contents: 200 µg purified Anti-mIL-28b-mIgG1 monoclonal antibody (mAb) is provided azide-free and lyophilized.

Target: Murine interleukin-28B (IL-28B)

Specificity: Reacts with murine IL-28A and murine IL-28B. No cross-reactivity with human IL-28A or human IL-28B.

Clone: 3C11

Source: Chinese hamster ovary (CHO) cells

Isotype: Mouse IgG1, kappa

Purification: Affinity chromatography with protein A

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

Tested applications: Neutralization & blocking *in vitro*

Antibody resuspension (0.1 mg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

Resuspend Anti-mIL-28b-mIgG1 with sterile water:

Add 2 ml of sterile water per 200 µg vial.

Storage and stability

- Product is shipped at room temperature. Upon receipt, store lyophilized antibody 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

- This product has been validated for neutralization using cellular assays.
- The complete sequence of this antibody has been verified.
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

BACKGROUND

Interleukin-28 (IL-28) is a member of the type III interferon (IFN-λ) cytokine family that exhibits several common features with type I IFNs: antiviral and antitumor activity^{1, 2}. IL-28 exerts its action following binding to a heterodimeric protein complex composed of two subunits, IFN lambda receptor 1 (IFNLR1) and IL-10 receptor beta (IL10Rβ), leading to signaling through the Jak/Stat pathway and inducing the expression of IFN-stimulated genes. IL-28 comes in two isoforms, IL-28A (IFN-λ2) and IL-28B (IFN-λ3)¹.

1. Donnelly RP. & Kolenko SV., 2010. Interferon-lambda: a new addition to an old family. J Interferon Cytokine Res. 30(8):555-64. 2. Li M. et al., 2009. Interferon-lambda: the modulators of antiviral, antitumor, and immune responses. J. Leukoc. Biol., 86:23-32.

DESCRIPTION

Anti-mIL-28b-mIgG1 is a recombinant mouse mAb against mIL-28B. It has been selected for its ability to efficiently neutralize the biological activity of mIL-28B and mIL-28A. Its sequence is 100% murine (constant and variable regions), as the original clone (clone 3C11) was raised in mice using a proprietary method. This feature ensures high antibody performance and overcomes immunogenic events. It is produced in CHO cells and purified by affinity chromatography.

APPLICATIONS

Anti-mIL-28b-mIgG1 is a neutralizing antibody. It can be used to block mIL-28B-induced cellular activation *in vitro*, as described below. InvivoGen also offers this mAb in the InvivoFit™ grade, specifically adapted for *in vivo* studies.

NEUTRALIZATION PROTOCOL

The exact concentration of antibody required to neutralize mIL-28B activity is dependent on the cytokine concentration, cell type, and growth conditions. Below is a protocol using recombinant mIL-28B as well as HEK-Blue™ IFN-α/β cells. These cells stably express the human STAT2, IRF9, and an IFN-inducible SEAP (secreted embryonic alkaline phosphatase) reporter. They respond to type I IFNs (IFN-α/β) and to a lesser extent to type III IFNs (IFN-λ). Changes in SEAP activity in the supernatant due to inhibition of IL-28B receptor binding can be assessed using QUANTI-Blue™ Solution, a SEAP detection reagent.

In a 96-well plate:

1. Prepare a serial dilution of the Anti-mIL-28b-mIgG1 and a negative control (e.g. Anti-β-Gal-mIgG1) starting 10 ng/ml to 1 µg/ml (final conc.).
2. Add 10 ng/ml recombinant mIL-28B to a final volume of 40 µl.
3. Incubate for 30 minutes at 37°C, 5% CO₂.
4. Prepare a suspension of HEK-Blue™ IFN-α/β cells (~3.2 x 10⁵ cells/ml) in culture medium.
5. Add 160 µl (5 x 10⁴ cells/well) of the cell suspension to each well.
6. Incubate the plate at 37°C, 5% CO₂ for 24 hours.
7. The next day: prepare QUANTI-Blue™ Solution and carry out the measurements following the instructions on the data sheet.

RELATED PRODUCTS

Product	Cat. Code
Anti-mIL-28b-mIgG1 InvivoFit™	mil28b-mab9-1
Anti-β-Gal-mIgG1	bgal-mab9-02
HEK-Blue™ IFN-α/β Cells	hkb-ifnab
HEK-Blue™ IFN-λ Cells	hkb-ifnl
QUANTI-Blue™ Solution	rep-qbs

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