



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## Anti-IL-4 [hu3B9] Bulk Size Ab04493-10.3-BT

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This is a reformatted human IgG1 Fc Silent Fc Silent™ antibody, based on the original human IgG1 format, created for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Human IgG1, Fc Silent™, Kappa

**Clone Number:** hu3B9

**Alternative Name(s) of Target:** IL4; BSF-1; Interleukin-4; B-cell stimulatory factor 1; Binetrakin; Lymphocyte stimulatory factor 1; Pitrakinra; 3B9

**UniProt Accession Number of Target Protein:** P05112

**Published Application(s):** in vivo, inhibition, ELISA

**Published Species Reactivity:** Human

**Immunogen:** The original antibody was generated by immunizing F1 hybrids of Balb/c and C57BL/6 with *E. Coli*-produced recombinant human IL-4.

**Specificity:** This antibody is specific for human IL-4 and binds a non-contiguous epitope.

**Application Notes:** The binding affinity of the original format and Fab fragment of this antibody were evaluated by ELISA. The original format of this antibody (mouse IgG1) exhibited a  $<0.2$  nM  $K_d$  (~0.18 nM). The  $K_d$  of its Fab fragment was  $<0.3$  nM. This antibody successfully inhibited IL-4 binding to its receptor, as evaluated using  $^{125}$ I-rhIL4 binding to the gibbon cell line, MLA. This antibody successfully inhibited lymphocyte proliferation — the original format of this antibody inhibited  $^3$ H-thymidine incorporation by human peripheral blood T lymphocytes stimulated with 133 pM IL-4 and human tonsillar B lymphocytes stimulated by 167 pM IL-4. The  $IC_{50}$  for inhibition of T cell proliferation was 30 pM, and for B cell proliferation 103 pM. The corresponding values for the Fab fragment were 108 and 393 pM. This antibody successfully inhibited CD23 induction — the original format of this antibody inhibited CD23 expression on human tonsil B lymphocytes stimulated with 8.3 pM IL-4 with an  $IC_{50}$  value of 136 pM. This antibody successfully inhibited IgE secretion — the original format and the Fab fragment of this antibody inhibited IgE secretion in the presence of 1.7 nM IL-4, giving  $IC_{50}$  values of 1.9 and 5.0 nM, respectively. The experiment was repeated using a lower concentration of IL-4, 667 pM, which reduced the  $IC_{50}$  value to 0.65 nM for the original format of the antibody. The humanized version of this antibody effectively inhibited the binding of IL-4 receptor-Fc fusion protein to IL-4 in a dose-dependent manner — at lower concentrations (10-20 nM), it achieved 50% inhibition, while at higher concentrations (1  $\mu$ M), it achieves greater than 90%

inhibition. In a pharmacokinetics experiment performed on male Sprague Dawley rats, the humanized version of this antibody exhibited low inter-animal variability with a slow plasma clearance value of 0.5 mL/h/kg and an approximate 11 days half-life with a biphasic disappearance pattern (US5914110A).

**Antibody First Published in:** [PMID:](#)

**Note on publication:** The original publication describes the generation and characterization of various anti-human IL-4 antibodies and their derivatives, including its humanization.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.