Produktinformation

Y Forschungsprodukte & Biochemikalien

⊙ Zellkultur & Verbrauchsmaterial

⧉ Diagnostik & molekulare Diagnostik

🔬 Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

Anti-IL-4 [hu3B9] Bulk Size Ab04493-2.0-BT

Isotype and Format: Mouse IgG2a, 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 generate 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 µM), 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 4ºC for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20ºC.

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.