

Anti-IL-5 [Sch 55700 (Reslizumab)] Bulk Size Ab04156-3.3-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 mouse IgG2b Fc Silent™ antibody, based on the original mouse IgG4 format, created for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Mouse IgG2b, [Fc Silent™](#), Kappa

Clone Number: Sch 55700 (Reslizumab)

Alternative Name(s) of Target: IL5; Interleukin-5; B-cell differentiation factor I; Eosinophil differentiation factor; T-cell replacing factor; TRF; CDP-835; CDP835; h39D10; JES1-39D10; SCH55700

UniProt Accession Number of Target Protein: P05113

Published Application(s): inhibit, neutralize, therapeutic, Block

Published Species Reactivity: Human

Immunogen: The parental rat antibody 39D10 was generated by immunizing a male lewis rat with semi-purified recombinant mammalian-expressed IL-5. The original Sch 55700 antibody was generated by grafting CDRs of the original rat antibody on to human framework regions.

Specificity: This antibody recognizes and binds human interleukin-5, a key cytokine responsible for the differentiation, maturation, recruitment and activation of human eosinophils. This antibody specifically recognizes amino acids 89–93 (ERRRV) of human IL-5 and is capable of blocking the binding of IL-5 with IL-5 receptor (PMID: 10590259).

Application Notes: This antibody is a humanized version of anti-IL5 rat antibody 39D10. The binding affinity of the original human IgG4 version of this antibody was measured using Biacore analysis and it was reported that this antibody bound human IL-5 with a $K_d = 81\text{pM}$ (PMID: 7613159). This antibody was capable of inhibiting the binding of hIL-5 to Ba/F3 cells and IL5 induced proliferation of human erythroleukemic cell line TF-1 with an EC_{50} of 45pM. The in vivo activity of this antibody was studied in Ascaris responsive monkeys, and it was reported that this antibody inhibits eosinophilia in allergic animal models with an extended biological duration (PMID: 7613159). This antibody was active against lung eosinophilia in allergic monkeys and mice and against pulmonary eosinophilia and airway hyperresponsiveness in allergic guinea pigs. It was reported that this antibody did not cause immunosuppression in guinea pigs (PMID: 9698918). It also blocks the pulmonary eosinophilia and neutrophilia caused by tracheal injection of hIL-5 in guinea pigs. In allergic rabbits, this antibody blocks cutaneous eosinophilia. In allergic cynomolgus monkeys, a single dose of this antibody (0.3 mg/kg i.v.)

blocks the pulmonary eosinophilia caused by antigen challenge for up to six months (PMID: 10514907). A study was also conducted to determine the effect of this antibody in patients with severe persistent asthma (PMID: 12649124). Clinical trials were conducted with this antibody to reduce asthma exacerbations, control asthma-related symptoms and improve pulmonary function in patients with eosinophilic asthma (PMID: 26372797).

Antibody First Published in: Egan et al. Inhibition of pulmonary eosinophilia and hyperreactivity by antibodies to interleukin-5. *Int Arch Allergy Immunol.* 1995 May-Jun;107(1-3):321-2. [PMID:7613159](#)

Note on publication: Describes the generation of humanized version of a rat anti- human IL5 antibody 39D10.

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.