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Anti-Lebrikizumab mIgG2a Antibody (3E5)

Product information

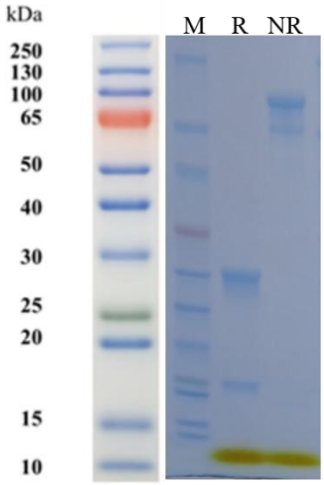
GM-89203AB-10	10 μg
GM-89203AB-100	100 μg
GM-89203AB-1000	1 mg

Antibody Information

Host Species	Mouse
Source	Anti-Lebrikizumab mIgG2a Antibody (3E5) is recombinantly expressed in CHO. It consists of mouse variable regions genetically fused to mIgG2a constant domains.
Clone	3E5
Isotype	mIgG2a, Kappa
Application	Bioactivity-ELISA
Target	Detects Lebrikizumab
Immunogen	Lebrikizumab
Background	Lebrikizumab is a humanized immunoglobulin G4 (IgG4)/kappa monoclonal antibody directed against interleukin-13 (IL-13), a type 2 cytokine that drives the inflammatory loop underlying atopic dermatitis. IL-13 signals through a heterodimeric receptor composed of IL-13Rα1 and IL-4Rα. Lebrikizumab binds IL-13 with high affinity and a slow dissociation rate at an epitope overlapping the IL-4Rα binding site, preventing assembly of the IL-13Rα1/IL-4Rα signaling complex and blocking downstream IL-13 signaling. The antibody is produced by recombinant DNA technology in a mammalian cell expression system and consists of humanized variable regions fused to human IgG4 constant domains, with a molecular weight of approximately 145 kDa. Lebrikizumab is approved for moderate-to-severe atopic dermatitis in adults and adolescents and has also been evaluated in asthma. Because therapeutic proteins can elicit anti-drug antibodies that alter drug exposure and efficacy, drug-specific anti-idiotypic antibodies such as this product are widely used as critical reagents for pharmacokinetic and immunogenicity assays.
Storage	Store at 2-8℃ short term (1-2 weeks). Store at ≤ -20℃ long term. Avoid repeated freeze-thaw.
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Endotoxin	< 1 EU/mg, determined by LAL gel clotting assay

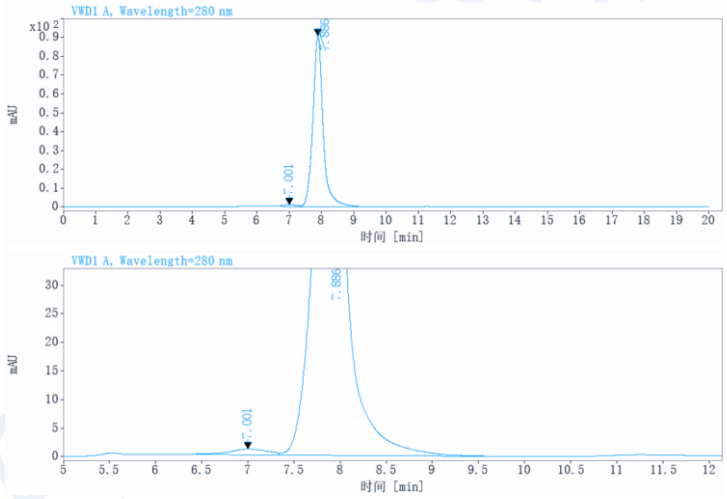
Data Examples

SDS-PAGE



On SDS-PAGE under reducing (R)/non-reducing(N-R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-HPLC



The purity of this product is more than 90% verified by SEC-HPLC.

Bioactivity-ELISA

Anti-Lebrikizumab mIgG2a Antibody (3E5) (Catalog # GM-89203AB) was evaluated as a surrogate positive control in a bridging ELISA for anti-Lebrikizumab ADA detection. Anti-IL13 hIgG4 Reference Antibody (Lebribio) (Catalog # GM-88031MAB, Lebrikizumab) was immobilized at 5 μg/mL. Increasing concentrations of Anti-Lebrikizumab mIgG2a Antibody (3E5) were added, followed by biotinylated Lebrikizumab at 5 μg/mL. Detection was performed using HRP-conjugated streptavidin.

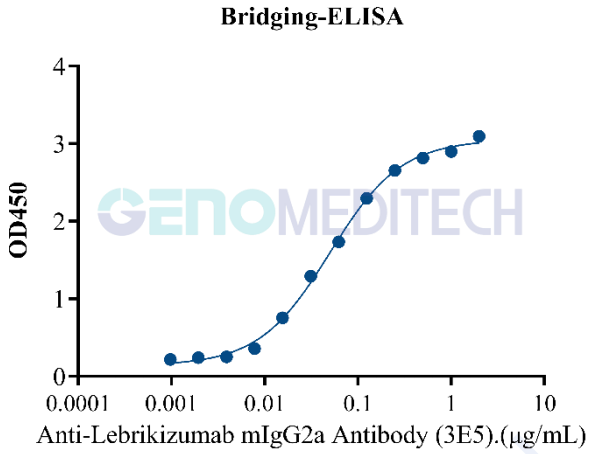


Fig. ELISA

Bioactivity-ELISA

The specificity of Anti-Lebrikizumab mIgG2a Antibody (3E5) (Catalog # GM-89203AB) was evaluated by ELISA. Anti-IL13 hIgG4 Reference Antibody (Lebribio) (Catalog # GM-88031MAB, Lebrikizumab) was immobilized at 1 μg/mL (100 μL/well). Anti-Lebrikizumab mIgG2a Antibody (3E5) specifically recognized Lebrikizumab, with no detectable binding to the tested Human IgG4 controls, IL-13, Leronlimab, Theralizumab or Inotuzumab under the tested conditions.

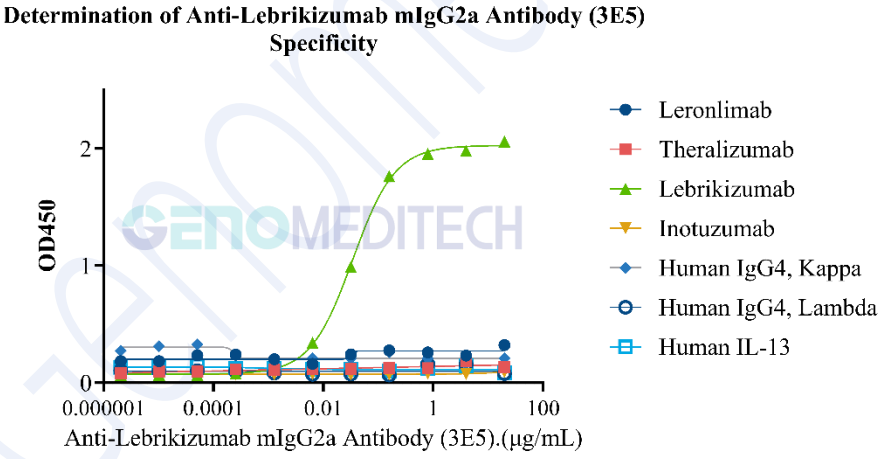


Fig. ELISA

Bioactivity-ELISA

The ability of Anti-Lebrikizumab mIgG2a Antibody (3E5) (Catalog # GM-89203AB) to block Anti-IL13 hIgG4 Reference Antibody (Lebribio) (Catalog # GM-88031MAB, Lebrikizumab) to IL-13 was evaluated by ELISA. Lebrikizumab was immobilized at 2 μg/mL (100 μL/well). Increasing concentrations of Anti-Lebrikizumab mIgG2a Antibody (3E5) were tested for their ability to inhibit the IL-13 to Lebrikizumab. Anti-Lebrikizumab mIgG2a Antibody (3E5) inhibited Lebrikizumab binding to IL-13 in a dose-dependent

manner, with an IC_{50} of approximately 3.316 μg/mL under the tested conditions.

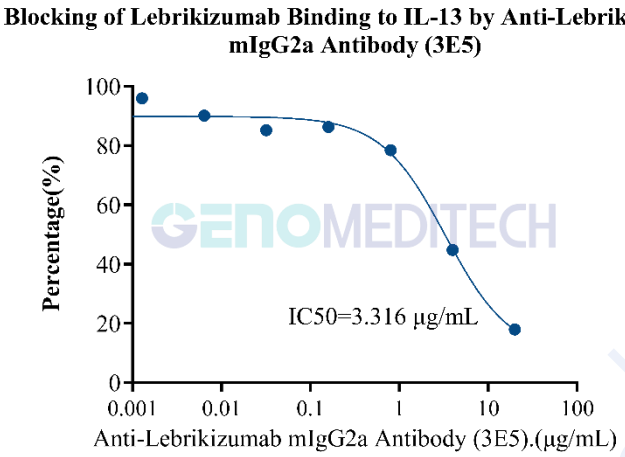


Fig. ELISA

Related Products

Anti-Lebrikizumab		
GM-89203AB	Anti-Lebrikizumab mIgG2a Antibody (3E5)	recommended for ADA assay
GM-89204AB	Anti-Lebrikizumab mIgG2a Antibody (6B2)	Non-Neutralizing
GM-89205AB	Anti-Lebrikizumab mIgG2a Antibody (1A11)	recommended for PK/PD
GM-89206AB	Biotinylated Anti-Lebrikizumab mIgG2a Antibody (11H8)	recommended for PK/PD