

Human IgE D2-D4 Protein; His Tag

Product Information

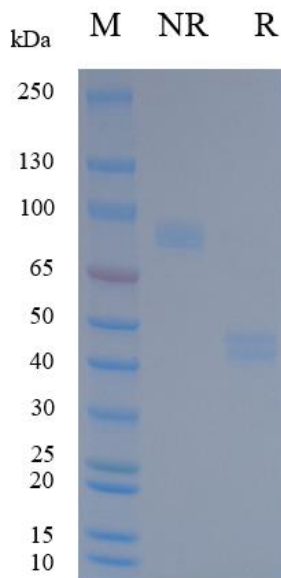
Product Name	Human IgE D2-D4 Protein; His Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88154RP-100 / 100 μg GM-88154RP-1000 / 1 mg

Protein Information

Alternative Names	IgE, IGHE
Source	Human IgE D2-D4 Protein; His Tag (GM-88154RP) is expressed from human 293 cells (HEK-293). It contains AA Ser 106 - Lys 428 (Accession # P01854-1). This protein carries a His tag at the N-terminus.
Purity	> 90% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	36.7 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	<p>IgE, or immunoglobulin E, is a class of antibodies primarily produced by plasma cells in mucosal tissues and the skin. It plays a central role in type I hypersensitivity and allergic reactions. IgE molecules have a typical Y-shaped structure consisting of two heavy chains and two light chains, with high affinity for the Fc epsilon receptor (FcϵRI) on the surface of mast cells and basophils. Upon allergen exposure, allergen-specific IgE binds to FcϵRI, sensitizing these effector cells and enabling rapid release of mediators such as histamine, leukotrienes, and cytokines when the allergen is encountered again, leading to symptoms ranging from rhinitis and urticaria to anaphylaxis in severe cases.</p> <p>Beyond immediate hypersensitivity, IgE is involved in defense against parasitic infections and contributes to immune regulation at mucosal surfaces. Its production is driven by T helper 2 (Th2) cells and cytokines like IL-4 and IL-13, and is tightly regulated to prevent excessive responses. Clinically, IgE levels are used in allergy diagnostics and monitoring, and targeted therapies (e.g., anti-IgE monoclonal antibodies) are employed to treat severe allergic diseases and asthma, aiming to reduce IgE-mediated mast cell activation and downstream inflammatory cascades.</p>

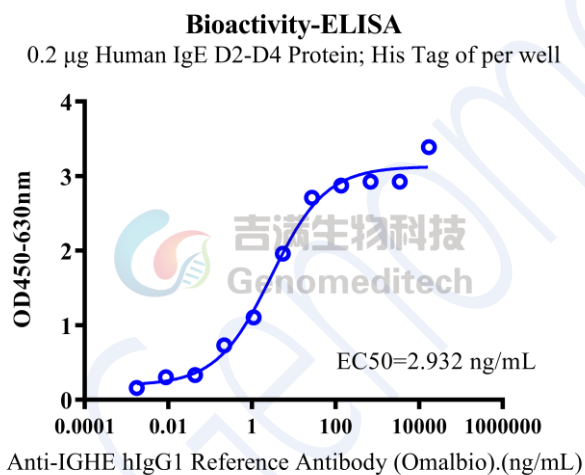
Version:4.0

SDS-PAGE



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

Bioactivity-ELISA



Human IgE D2-D4 Protein; His Tag (Catalog # GM-88154RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Anti-IGHE hIgG1 Reference Antibody (Omalbio) (Catalog # GM-87960MAB) were added.