IgE Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P700736
Synonyms:	Ig epsilon chain C region; IgE
Species:	Human
Source:	HEK293
Accession:	P01854 (C209-K428)
Gene ID:	3497
Molecular Weight:	30-40 kDa

PROPERTIES

Biological Activity	Immobilized Human IgE, His Tag at 0.5 μg/mL (100μl/well) on the plate. Dose response curve for Anti-IgE Antibody, hFc Tag with the EC_{50} of ≤7.0 ng/mL determined by ELISA.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 μm filtered solution of 20mM PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The IgE protein, a crucial component of immunoglobulins, functions in both the recognition and effector phases of humoral immunity. Serving as a membrane-bound receptor on B lymphocytes during the recognition phase, IgE plays a pivotal role in triggering clonal expansion and differentiation into immunoglobulin-secreting plasma cells upon specific antigen binding. In the effector phase, secreted IgE mediates immune responses through two Fc receptors, FCER1A:MS4A2:FCGR1A and FCER2, which, upon antigen cross-linking, initiate signaling pathways leading to immune cell activation. IgE facilitates immediate hypersensitivity responses against allergens and defends against helminth parasites, bacteria, and venom toxicity. Dysregulation can lead to harmful allergic reactions and anaphylaxis. IgE stimulates mast cells, basophils, and eosinophils to release inflammatory mediators, contributing to tissue remodeling and cytotoxicity against microbes. On macrophages, IgE induces intracellular killing of parasites and activates antitumor functions, including antibody-dependent cytotoxicity and proinflammatory responses. Additionally, IgE plays a role in B cell antigen uptake and presentation to T cells.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA