

IgE Protein, Human (HEK293, His)

Cat. No.:	HY-P73907
Synonyms:	Immunoglobulin heavy constant epsilon; IGHE; IgE
Species:	Human
Source:	HEK293
Accession:	AAB59395 (C208-K427)
Gene ID:	/
Molecular Weight:	Approximately 26-35 kDa

PROPERTIES

AA Sequence	<p> C A D S N P R G V S A Y L S R P S P F D L F I R K S P T I T C L V V D L A P S K G T V N L T W S R A S G K P V N H S T R K E E K Q R N G T L T V T S T L P V G T R D W I E G E T Y Q C R V T H P H L P R A L M R S T T K T S G P R A A P E V Y A F A T P E W P G S R D K R T L A C L I Q N F M P E D I S V Q W L H N E V Q L P D A R H S T T Q P R K T K G S G F F V F S R L E V T R A E W E Q K D E F I C R A V H E A A S P S Q T V Q R A V S V N P G K </p>
Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	<p>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</p>
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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.

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