Recombinant IGHE protein (His tag)

Catalog Number	539672
Synonyms	Ig epsilon chain C region; Ig epsilon chain C region ND
Species	Human
Expression System	E. coli
Accession	P01854
Molecular Weight	Predictes a molecular mass of 48.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 48 kDa band.

Product Information

Sequence Region	1-423
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-423 aa (P01854) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Immunoglobulin Heavy Constant Epsilon (IgE C region) Fragment (residues 1-423) is a high-purity protein encompassing the complete Ig-like domains 1-4. This fragment is an essential tool for investigating IgE-mediated immune responses, including allergy mechanisms, antibody-dependent cellular cytotoxicity, and B-cell receptor signaling, providing researchers with a defined reagent for functional and structural studies. Immunoglobulin E (IgE) plays a critical role in humoral immunity, particularly in defense against parasites and in allergic responses. The constant region of IgE mediates effector functions through interactions with high-affinity (FCER1) and low-affinity (FCER2) receptors on mast cells, basophils, eosinophils, and B cells. Upon antigen cross-linking, IgE triggers immune cell activation, leading to inflammatory mediator release, antigen presentation, and cytotoxicity against pathogens and tumors. The full-length protein exists as both secreted (effector functions) and membrane-bound isoforms (B-cell receptor complex components), with the secreted form localized to the extracellular space and membrane forms anchored to the cell surface. This recombinant fragment specifically contains the structured Ig-like domains responsible for receptor binding and immune complex formation.