

Ig kappa Protein, Human (HEK293, His)

Cat. No.:	HY-P72609
Synonyms:	Ig kappa chain C region; IGKC; Immunoglobulin Kappa
Species:	Human
Source:	HEK293
Accession:	P01834 (T2-C107)
Gene ID:	3514
Molecular Weight:	Approximately 14 kDa

PROPERTIES

AA Sequence	<p>T V A A P S V F I F P P S D E Q L K S G T A S V V C L L N N F Y P R E A K V Q W</p> <p>K V D N A L Q S G N S Q E S V T E Q D S K D S T Y S L S S T L T L S K A D Y E K</p> <p>H K V Y A C E V T H Q G L S S P V T K S F N R G E C</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, 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 constant region of immunoglobulin light chains, exemplified by Ig kappa protein, plays a crucial role in the structure and function of antibodies, also known as immunoglobulins. Produced by B lymphocytes, these membrane-bound or secreted glycoproteins serve as receptors in the recognition phase of humoral immunity. Upon binding a specific antigen, membrane-bound immunoglobulins initiate the clonal expansion and differentiation of B lymphocytes into plasma cells that secrete immunoglobulins. Secreted immunoglobulins, in turn, orchestrate the effector phase of humoral immunity, leading to the elimination of bound antigens. The antigen binding site is shaped by the variable domain of one heavy chain, in conjunction with that of its associated light chain, resulting in each immunoglobulin having two antigen binding sites with remarkable affinity for a particular antigen. The variable domains undergo V-(D)-J rearrangement and subsequent somatic hypermutations, allowing affinity maturation following exposure to antigen and selection. Immunoglobulins are</p>
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characterized by two identical heavy chains and two identical light chains, intricately linked by disulfide bonds.

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

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