CD3 epsilon Protein, Rat (HEK293, Fc)

Cat. No.:	HY-P76788
Synonyms:	T-Cell Surface Glycoprotein CD3 Epsilon Chain; T-Cell Surface Antigen T3/Leu-4 Epsilon Chain; CD3e; CD3E; T3E
Species:	Rat
Source:	HEK293
Accession:	NP_001101610.1 (Y24-D103)
Gene ID:	315609
Molecular Weight:	Approximately 36.1 kDa.

PROPERTIES

AA Sequence	Y E V S I S G T S V E L T C P L E N E D N L K W E K N D K V L P D K N E K H L V L E D F S E V K D S G Y Y V C Y T E S S R K N T Y L Y L K A R V C E N C M E V D
Biological Activity	Immobilized Rat CD3 epsilon at 1 μg/mL (100 μL/well) can bind anti-CD3. The ED50 for this effect is 3.715 ng/mL.
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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.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	The CD3 epsilon protein, a vital component of the TCR-CD3 complex on T-lymphocytes, is pivotal for adaptive immune responses. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. CD3E is crucial for proper T-cell development and contributes to TCR-CD3 complex internalization and down-regulation. The CD3D/CD3E and CD3G/CD3E heterodimers form trimers with TCRalpha and TCRbeta, completing the TCR-CD3 complex. CD3E's interactions with CD6 and NCK1 highlight its multifaceted role in T-cell responses[1].

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

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