

# **Screening Libraries**

**Proteins** 

# **Product** Data Sheet

# CD3 epsilon Protein, Rhesus Macaque (HEK293, His)

Cat. No.: HY-P76791

T-Cell Surface Glycoprotein CD3 Epsilon Chain; T-Cell Surface Antigen T3/Leu-4 Epsilon Chain; Synonyms:

CD3e; CD3E; T3E

Species: Rhesus Macaque

Source: **HEK293** 

Accession: XP\_001097204 (M1-D117)

Gene ID: 699467

Molecular Weight: Approximately 12.3 kDa.

## **PROPERTIES**

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH <sub>2</sub> O.
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<sup>[1]</sup>.

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

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