Description
Source
Human CD3 delta Protein (Human CD3 delta, His Tag) Phe 22 - Ala 105 (Accession # AAH39035) was produced in human 293 cells (HEK293) at ACROBiosystems.

Predicted N-terminus
Phe 22

Molecular Characterization
Human CD3 delta, His Tag is fused with a polyhistidine tag at the C-terminus, and has a calculated MW of 11 kDa. The predicted N-terminus is Phe 22. DTT-reduced Protein migrates as 18-25 kDa in SDS-PAGE.

Endotoxin
Less than 1.0 EU per μg of the Human CD3 delta, His Tag by the LAL method.

Purity
>95% as determined by SDS-PAGE.

Formulation and Storage
Formulation
Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.

Reconstitution
See Certificate of Analysis for reconstitution instructions and specific concentrations.

Storage
Lyophilized Protein should be stored at -20°C or lower for long term storage. Upon reconstitution, working aliquots should be stored at -20°C or -70°C.

Avoid repeated freeze-thaw cycles.

No activity loss was observed after storage at:
• 4-8°C for 12 months in lyophilized state;
• -70°C for 3 months under sterile conditions after reconstitution.

Background
CD3D is also known as CD3-DELTA, T3D, and is a single-pass type I membrane protein. CD3D is part of the T-cell receptor/CD3 complex (TCR/CD3 complex) and is involved in T-cell development and signal transduction. The encoded membrane protein represents the delta subunit of the CD3 complex, and along with four other CD3 subunits, binds either TCR alpha/beta or TCR gamma/delta to form the TCR/CD3 complex on the surface of T-cells. Defects in this gene are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (SCIDBNK). Two transcript variants encoding different isoforms have been found for this gene. Other variants may also exist, but the full-length natures of their transcripts has yet to be defined. Defects in CD3D cause severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T-/B+/NK+ SCID) which is a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels.

Please contact us at TechSupport@acrobiosystems.com, if you have any questions about this product.

References
The purity of Human CD3 delta, His Tag was determined by DTT-reduced (+) SDS-PAGE and staining overnight with Coomassie Blue.