

## CD3D &amp; CD3E Heterodimer Protein, Human, Recombinant (Flag &amp; His), Biotinylated

## General Information

Synonyms:	T3D;CD3d molecule, $\delta$ (CD3-TCR complex);CD3d molecule, delta (CD3-TCR complex);CD3-DELTA;CD3- $\delta$ ;IMD19
Protein Construction:	A DNA sequence encoding the extracellular domain (Met1-Ala105) of human CD3D (P04234) was fused with a flag tag at the C-terminus, constructed the plasmid 1; A DNA sequence encoding the extracellular domain (Met1-Asp126) of human CD3E (P07766) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 2. The two plasmids were co-expressed and the human CD3D/CD3E heterodimer was purified. The purified protein was biotinylated in vitro. Predicted N terminal: Phe 22 & Asp 23
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P04234&P07766
Molecular Weight:	31.05 kDa (predicted)

## QC Testing

Biological Activity:	1.Immobilized Recombinant Human CD3D & CD3E Heterodimer Protein, Biotinylated (Cat#TMPY-05374) at 2 $\mu$ g/mL (100 $\mu$ L/well) on Streptavidin precoated (2 $\mu$ g/mL, 100 $\mu$ L/well) can bind Anti-CD3 antibody, Mouse IgG2a (Muromonab), the EC50 is 1-3 ng/mL. 2.Amine-Labeled Biotinylated Recombinant Human CD3D & CD3E Heterodimer Protein, Flag & His Tag (Cat#TMPY-05374) captured on CM5 chip via Anti-His antibody, can bind OKT3 derived Anti-CD3 antibody, Mouse IgG2a with an affinity constant of 0.241 $\mu$ M as determined in an SPR assay (Biacore T200) (Routinely tested).
Purity:	> 95 % as determined by SDS-PAGE. $\geq$ 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

## Preparation and Storage

## Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

## Stability &amp; Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

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