

**Goat Anti-CD3D Antibody (internal region)**  
**Purified Goat Polyclonal Antibody**  
**Catalog # AF4200a**

**Specification**

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**Goat Anti-CD3D Antibody (internal region) - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P04234</a>
Other Accession	<a href="#">NP_000723.1</a>
Reactivity	<b>Human</b>
Predicted	<b>Human</b>
Host	<b>Goat</b>
Clonality	<b>Polyclonal</b>
Concentration	<b>0.5</b>
Calculated MW	<b>18930</b>

**Goat Anti-CD3D Antibody (internal region) - Additional Information**

**Gene ID** 915

**Other Names**

CD3D; CD3d molecule, delta (CD3-TCR complex); CD3-DELTA; IMD19; T3D; CD3 antigen, delta subunit; CD3 delta; CD3d antigen, delta polypeptide (TiT3 complex); OKT3, delta chain; T-cell receptor T3 delta chain; T-cell surface glycoprotein CD3 delta chain

**Format**

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

**Immunogen**

Peptide with sequence C-HETGRLSGAADTQ, from the internal region of the protein sequence according to NP\_000723.1.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-CD3D Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-CD3D Antibody (internal region) - Protein Information**

**Name** CD3D

**Synonyms** T3D

**Function**

Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. 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. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed:<a href="http://www.uniprot.org/citations/2470098" target="\_blank">2470098</a>). In addition of this role of signal transduction in T-cell activation, CD3D plays an essential role in thymocyte differentiation. Indeed, participates in correct intracellular TCR-CD3 complex assembly and surface expression. In absence of a functional TCR-CD3 complex, thymocytes are unable to differentiate properly. Interacts with CD4 and CD8 and thus serves to establish a functional link between the TCR and coreceptors CD4 and CD8, which is needed for activation and positive selection of CD4 or CD8 T-cells (PubMed:<a href="http://www.uniprot.org/citations/12215456" target="\_blank">12215456</a>).

**Cellular Location**

Cell membrane; Single-pass type I membrane protein

**Tissue Location**

CD3D is mostly present on T-lymphocytes with its TCR-CD3 partners. Present also in fetal NK-cells

**Goat Anti-CD3D Antibody (internal region) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Goat Anti-CD3D Antibody (internal region) - Images**

AF4200a (1 µg/ml) staining of Jurkat (A) and Molt4 (B) lysates (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **Goat Anti-CD3D Antibody (internal region) - References**

A leaky mutation in CD3D differentially affects  $\alpha\beta$  and  $\gamma\delta$  T cells and leads to a  $T\alpha\beta$ - $T\gamma\delta$ +B+NK+ human SCID. Gil J, Busto EM, Garcillán B, Chean C, García-Rodríguez MC, Díaz-Alderete A, Navarro J, Reiné J, Mencía A, Gurbindo D, Beléndez C, Gordillo I, Duchniewicz M, Höhne K, García-Sánchez F, Fernández-Cruz E, López-Granados E, Schamel WW, Moreno-Pelayo MA, Recio MJ, Regueiro JR. The Journal of clinical investigation 2011 Oct 121 (10): 3872-6.