

**CD7**  
Catalog # PVGS1892

## Specification

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### CD7 - Product Information

Primary Accession [P09564](#)  
**Species**  
Human

**Sequence**  
Ala26-Pro180

**Purity**  
> 95% as determined by Bis-Tris PAGE  
> 95% as determined by HPLC

**Endotoxin Level**  
Less than 1EU per µg by the LAL method.

**Biological Activity**  
Measured by its binding ability in a functional ELISA. Immobilized CD7 [Biotin], His & Avi, Human at 0.5 µg/ml (100 µl/well) on the streptavidin precoated plate (5 µg/ml) can bind Anti-CD7 Antibody, hFc Tag. Test result was comparable to standard batch.

**Expression System**  
HEK293

**Theoretical Molecular Weight**  
19.3 kDa

Formulation **Lyophilized from a 0.22 µm filtered solution in PBS (pH 7.4).**

**Reconstitution**  
Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.

**Storage & Stability**  
Upon receiving, the product remains stable up to 6 months at -20 °C or below. Upon reconstitution, the product should be stable for 3 months at -80 °C. Avoid repeated freeze-thaw cycles.

### CD7 - Additional Information

**Gene ID** 924

**Other Names**  
T-cell antigen CD7, GP40, T-cell leukemia antigen, T-cell surface antigen Leu-9, TP41, CD7, CD7

**Target Background**  
CD7, also known as Leu-9, is an approximately 40 kDa glycosylated and palmitoylated

transmembrane protein in the immunoglobulin superfamily. CD7 is expressed on T cells, NK cells, myeloid progenitor cells, and CD19 B progenitor cells. Among CD8 T cells, the CD7-bright population preferentially contains naïve and memory cells, while more weak expressors are primarily effector cells.

## CD7 - Protein Information

**Name** CD7

### Function

Transmembrane glycoprotein expressed by T-cells and natural killer (NK) cells and their precursors (PubMed: [7506726](http://www.uniprot.org/citations/7506726)). Plays a costimulatory role in T-cell activation upon binding to its ligand K12/SECTM1 (PubMed: [10652336](http://www.uniprot.org/citations/10652336)). In turn, mediates the production of cytokines such as IL-2 (PubMed: [1709867](http://www.uniprot.org/citations/1709867)). On resting NK-cells, CD7 activation results in a significant induction of interferon-gamma levels (PubMed: [7506726](http://www.uniprot.org/citations/7506726)).

### Cellular Location

Membrane; Single-pass type I membrane protein.

### Tissue Location

Expressed on T-cells and natural killer (NK) cells and their precursors.

## CD7 - 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](#)

## CD7 - Images