

**CD3G Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP1495c****Specification**

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**CD3G Antibody (Center) Blocking Peptide - Product Information**Primary Accession [P09693](#)**CD3G Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 917**Other Names**

T-cell surface glycoprotein CD3 gamma chain, T-cell receptor T3 gamma chain, CD3g, CD3G, T3G

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP1495c](/products/AP1495c) was selected from the Center region of human CD3G. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CD3G Antibody (Center) Blocking Peptide - Protein Information****Name** CD3G**Synonyms** T3G**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: <http://www.uniprot.org/citations/2470098> target="\_blank">2470098</a>). In addition to this role of signal transduction in T-cell activation, CD3G plays an essential role in the dynamic regulation of TCR expression at the cell surface (PubMed: <http://www.uniprot.org/citations/8187769> target="\_blank">8187769</a>).

Indeed, constitutive TCR cycling is dependent on the di-leucine-based (diL) receptor-sorting motif present in CD3G.

**Cellular Location**

Cell membrane; Single-pass type I membrane protein

**CD3G Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**CD3G Antibody (Center) Blocking Peptide - Images****CD3G Antibody (Center) Blocking Peptide - Background**

CD3G is the CD3-gamma polypeptide, which together with CD3-epsilon, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T-cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. Defects in the CD3G gene are associated with T cell immunodeficiency.

**CD3G Antibody (Center) Blocking Peptide - References**

Siegers, G.M., J. Exp. Med. 204 (11), 2537-2544 (2007) Sigalov, A.B., Biochemistry 45 (51), 15731-15739 (2006)