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CD3G Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1495a

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	P09693
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	20469
Antigen Region	48-76

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	This CD3G antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 48-76 amino acids from the N-terminal region of human CD3G.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CD3G Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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 CD247/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:2470098). 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:8187769). 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

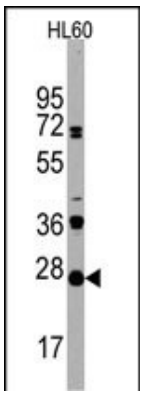
Background

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. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. Defects in the CD3G gene are associated with T cell immunodeficiency.

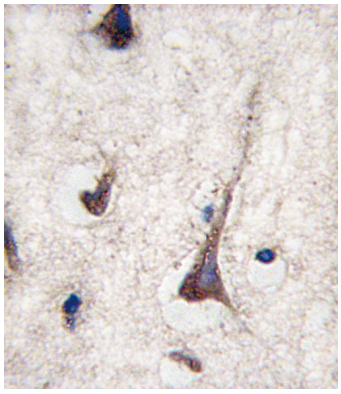
References

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

Images

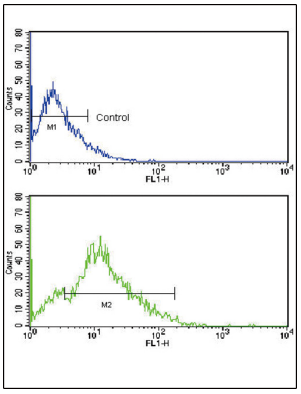


CD3G Antibody (N-term) (Cat. #AP1495a) western blot analysis in RPMI8226 cell line lysates (35ug/lane).This demonstrates the CD3G antibody detected the CD3G protein (arrow).



Formalin-fixed and paraffin-embedded human brain tissue reacted with CD3G antibody (N-term) (Cat.#AP1495a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Flow cytometric analysis of HL-60 cells using CD3G Antibody (N-term) (bottom histogram) compared to a



negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.