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CD3G

Purified Mouse Monoclonal Antibody
Catalog # AO2738a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P09693
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5B7B2
Isotype	Mouse IgG1
Calculated MW	20469
Immunogen	Purified recombinant fragment of human CD3G (AA: extra 23-116) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	917
Other Names	T3G; IMD17; CD3-GAMMA
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
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	CD3G 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

References

1.Scand J Immunol. 2014 Nov;80(5):354-61.2.DNA Cell Biol. 2012 Sep;31(9):1480-5.

Images

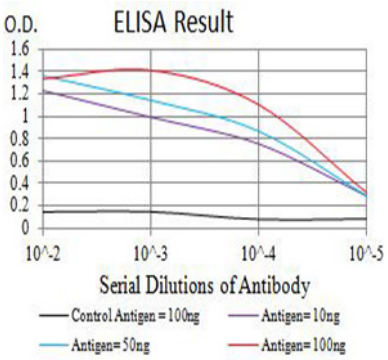


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

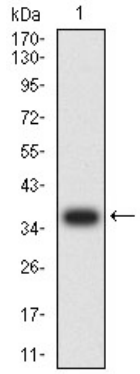


Figure 2:Western blot analysis using CD3G mAb against human CD3G (AA: extra 23-116) recombinant protein. (Expected MW is 36.6 kDa)

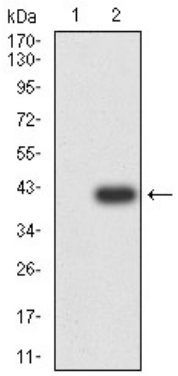
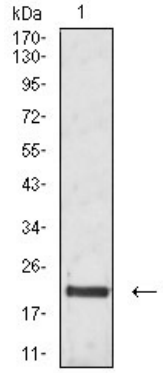


Figure 3:Western blot analysis using CD3G mAb against HEK293 (1) and CD3G (AA: extra 23-116)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 4:Western blot analysis using CD3G mouse mAb against Jurkat (1) cell lysate.



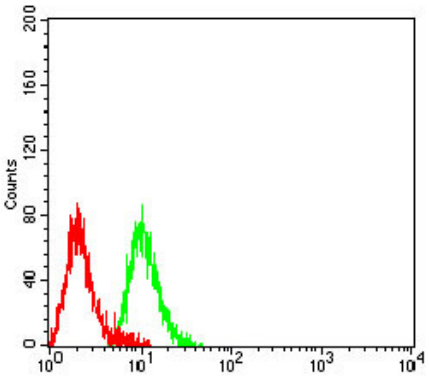


Figure 5:Flow cytometric analysis of Raji cells using CD3G mouse mAb (green) and negative control (red).

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