

**CD45 Antibody (aa1029-1249, clone 3G4)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS12557**

### Specification

#### CD45 Antibody (aa1029-1249, clone 3G4) - Product Information

Application	WB, IHC-P, E
Primary Accession	<a href="#">P08575</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	147kDa KDa
Dilution	WB~~1:1000
	IHC-P~~N/A
	E~~N/A

#### CD45 Antibody (aa1029-1249, clone 3G4) - Additional Information

##### Gene ID 5788

##### Other Names

Receptor-type tyrosine-protein phosphatase C, 3.1.3.48, Leukocyte common antigen, L-CA, T200, CD45, PTPRC, CD45

##### Reconstitution & Storage

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

##### Precautions

CD45 Antibody (aa1029-1249, clone 3G4) is for research use only and not for use in diagnostic or therapeutic procedures.

#### CD45 Antibody (aa1029-1249, clone 3G4) - Protein Information

Name PTPRC ([HGNC:9666](#))

Synonyms CD45

##### Function

Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor (PubMed:<a href="http://www.uniprot.org/citations/35767951" target="\_blank">35767951</a>). Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN. Dephosphorylates LYN, and thereby modulates LYN activity (By similarity). Interacts with CLEC10A at antigen presenting cell-T cell contact; CLEC10A on immature dendritic cells recognizes Tn antigen- carrying PTPRC/CD45 receptor on effector T cells and modulates T cell activation threshold to limit autoreactivity.

**Cellular Location**

Cell membrane; Single-pass type I membrane protein. Membrane raft. Synapse. Note=Colocalized with DPP4 in membrane rafts.

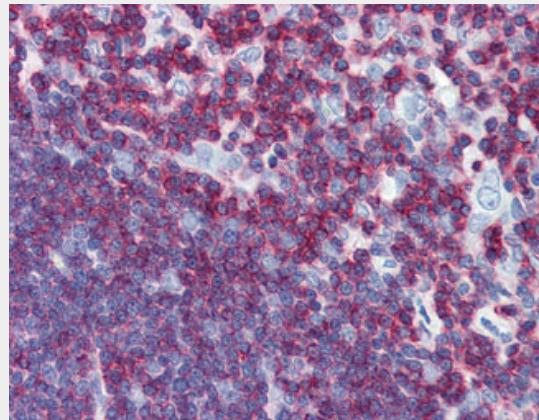
**Tissue Location**

Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

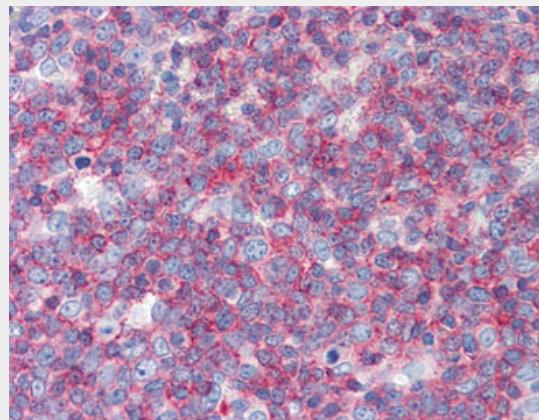
**CD45 Antibody (aa1029-1249, clone 3G4) - Protocols**

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](#)

**CD45 Antibody (aa1029-1249, clone 3G4) - Images**

Anti-CD45 antibody IHC of human thymus.



Anti-CD45 antibody IHC of human tonsil.

### **CD45 Antibody (aa1029-1249, clone 3G4) - Background**

Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN. Dephosphorylates LYN, and thereby modulates LYN activity (By similarity).

### **CD45 Antibody (aa1029-1249, clone 3G4) - References**

Streuli M.,et al.J. Exp. Med. 166:1548-1566(1987).  
Ralph S.J.,et al.EMBO J. 6:1251-1257(1987).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Tsai A.Y.M.,et al.Mol. Cell. Biol. 9:4550-4555(1989).  
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