

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

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

Application	IHC
Primary Accession	<a href="#">P08575</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	147kDa KDa

**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. 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).

**Cellular Location**

Cell membrane; Single-pass type I membrane protein. Membrane raft 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:

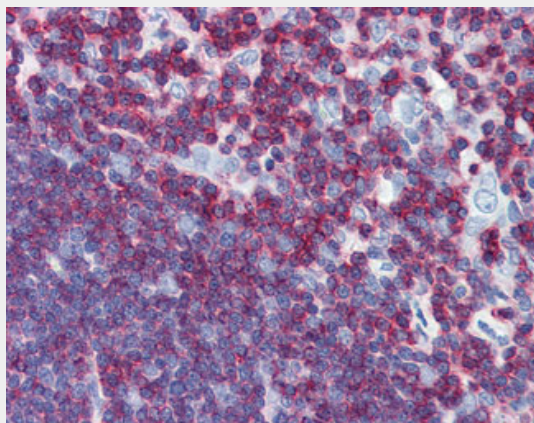
Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

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

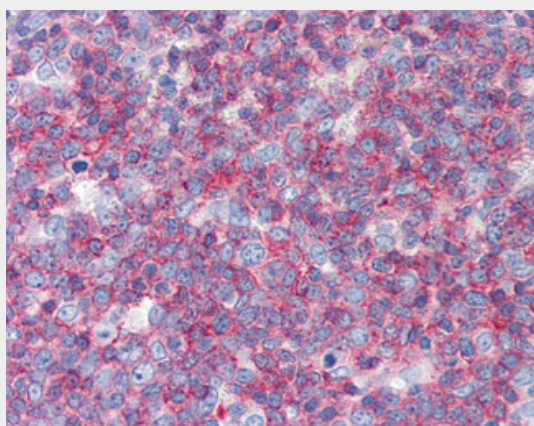
Provided below are standard protocols that you may find useful for product applications.

- [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**

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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).  
Hall L.R.,et al.J. Immunol. 141:2781-2787(1988).