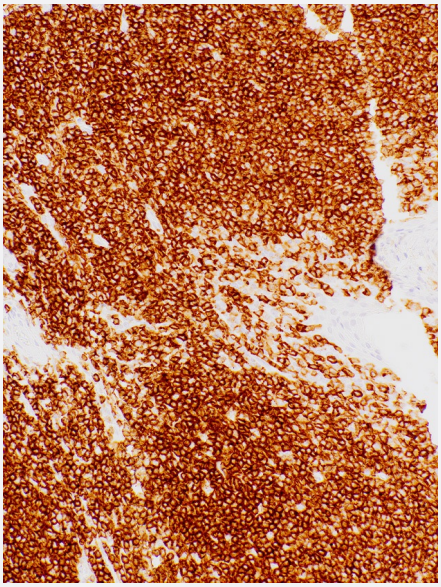
PTPRC monoclonal antibody, clone IHC145

Catalog # MAB23805 Size 100 uL

Applications



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining of tonsil tissue using PTPRC monoclonal antibody, clone IHC145.

Specification

Product Description	Cluster of Differentiation 45 (CD45), also known as Leukocyte Common Antigen (LCA), is a member of the protein tyrosine phosphatase (PTPase) family that is known to regulate a variety of cellular processes including cell growth, differentiation, the mitotic cycle, and oncogenic transformation. CD45 is expressed in most nucleated cells of hematopoietic origin, and is an essential regulator of T- and B-cell antigen receptor signaling. Anti-CD45 positively stains the majority of lymphoid neoplasms, and is highly indicative of lymphoid origin. However, an absence of CD45 does not rule out lymphoid tumours, as certain types of neoplasms lack CD45, such as Hodgkin's lymphoma, some T-cell lymphomas, and some leukemias.
Host	Mouse
Form	Liquid
Regulatory Status	For research use only (RUO)

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Recommend Usage	Immunohistochemistry (1:50-1:200) The optimal working dilution should be determined by the end user.
Storage Buffer	Tris Buffer, pH 7.3 - 7.7, with 1% BSA and <0.1% Sodium Azide.
Storage Instruction	Store at 4°C. Avoid multiple freeze-thaw cycles.

Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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Gene Info — PTPRC

Entrez GeneID	5788
Gene Name	PTPRC
Gene Alias	B220, CD45, CD45R, GP180, LCA, LY5, T200
Gene Description	protein tyrosine phosphatase, receptor type, C
Omim ID	126200 151460 609532
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including c ell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extra cellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic dom ains, and thus belongs to receptor type PTP. This gene is specifically expressed in hematopoietic cells. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor sign aling. It functions through either direct interaction with components of the antigen receptor comple xes, or by activating various Src family kinases required for the antigen receptor signaling. This P TP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Four alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have b een reported. [provided by RefSeq
Other Designations	CD45 antigen|T200 glycoprotein|T200 leukocyte common antigen|glycoprotein|leukocyte-commo n antigen|protein tyrosine phosphatase, receptor type, c polypeptide

Pathway

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- Cell adhesion molecules (CAMs)
- Fc gamma R-mediated phagocytosis
- Primary immunodeficiency
- T cell receptor signaling pathway

Disease

- Arthritis
- Ascariasis
- Autoimmune Diseases
- Cardiomyopathy
- Diabetes Mellitus
- Genetic Predisposition to Disease
- Graves Disease
- Hashimoto Disease
- Hepatitis
- Hepatitis B
- Hepatitis C
- HIV Infections
- Inflammatory Bowel Diseases
- Lupus Erythematosus
- Lymphopenia
- Multiple Sclerosis
- Paraparesis
- Scleroderma
- Severe combined immunodeficiency
- Thyroiditis

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