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DATA SHEET

Mouse Anti-CD3 [PC3/188A]: MC0273, MC0273RTU7

Intended Use: For Research Use Only

Description: CD3 is a protein complex and T cell co-receptor that is involved in activating both the cytotoxic T cell and T helper cells. It is composed of four distinct chains CD3γ, CD3δ, and two CD3ε chains in mammals. These chains associate with the T-cell receptor (TCR) and the CD3-zeta (ζ-chain) to generate activation signal in T lymphocytes. The TCR, CD3-zeta, and the other CD3 molecules together constitute the TCR complex. CD3 is initially expressed in the cytoplasm of pro-thymocytes, the stem cells from which T-cells arise in the thymus. The pro-thymocytes differentiate into common thymocytes, and then into medullary thymocytes, and it is at this latter stage that CD3 antigen begins to migrate to the cell membrane. The antigen is highly specific marker for T cells, remains present in almost all T-cell lymphomas and leukaemias, and can therefore be used to distinguish them from superficially similar B-cell and myeloid neoplasms. This monoclonal antibody recognizes the epsilon-chain of CD3. CD3 epsilon subunit is the most exposed of the native CD3 structures which are immunogenic and that cross-linking of the CD3 epsilon chain by the monoclonal antibody mediates the subsequent T cell activation via the T cell receptor complex.

Specifications:

Clone:	PC3/188A
Source:	Mouse
Isotype:	IgG1k
Reactivity:	Human, mouse, rat
Immunogen:	Synthetic peptide aa 156-168 of human CD3e chain
Localization:	Membrane, cytoplasm
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, Flow Cyt., IF, IP, WB

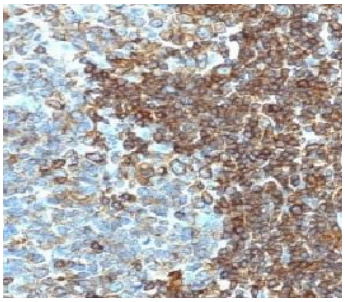
Package:

Description	Catalog No.	Size
CD3 Concentrated	MC0273	1 ml
CD3 Prediluted	MC0273RTU7	7 ml

IHC Procedure*:

Positive Control Tissue:	Tonsil or lymph node, Jurkat and MOLT-4 cells
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human tonsil stained with anti-CD3 using DAB

References:

1. CEACAM1 regulates TIM-3-mediated tolerance and exhaustion. YH, et al. Nature 517:386-90, 2015.
2. In situ characterization of intrahepatic non-parenchymal cells in PSC reveals phenotypic patterns associated with disease severity. Berglin L, et al. PLoS One 9:e105375, 2014.

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