

## Background:

Cluster of differentiation 3 (CD3) is a multimeric protein complex, known historically as the T3 complex, and is composed of four distinct polypeptide chains; epsilon ( $\varepsilon$ ), gamma ( $\gamma$ ), delta ( $\delta$ ) and zeta ( $\zeta$ ), that assemble and function as three pairs of dimers ( $\varepsilon \gamma, \varepsilon \delta$, ३). The CD3 complex serves as a T cell co-receptor that associates noncovalently with the T cell receptor (TCR).

CD3 antigen appearance at all stages of T cell development, and makes it an ideal T cell marker for both the detection of normal T cells and T cell neoplasms (lymphomas and leukemias).

## Subcellular location:

## Membrane

## Recommended method:

Heat induced epitope retrieval with Tris-EDTA buffer ( pH 9.0 ), primary antibody incubate at $\mathrm{RT}\left(18^{\circ} \mathrm{C}-25^{\circ} \mathrm{C}\right)$ for 30 minutes.

## Immunogen:

Synthetic peptide corresponding to CD3E residues within aa100-200 of CD3E was used as an immunogen.

## Storage Buffer:

PBS 59\%, Sodium azide 0.01\%, Glycerol 40\%, BSA
0.05\%.

## Storage conditions:

$-20^{\circ} \mathrm{C}$

## Storage instructions:

Shipped on blue ice. Upon delivery, aliquot, and store at $-20^{\circ} \mathrm{C}$. Avoid freeze / thaw cycles.

## Recommended Dilutions:

IHC-P: 1:100-1:200

## Background References:

1. Smith-Garvin JE, et.al, Annu Rev Immunol.

2009;27:591-619.
2. Salvadori S, et.al, J Immunol. 1994 Dec 1;153(11):517682.


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections analysis of tonsil tissue labelling CD3 with BP6039. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0

Product QC'd by:


For research use only. Not for use in diagnostic or therapeutic applications.

