

Polyclonal Anti- CD3 epsilon Picoband™ Antibody

Catalog Number: PB9093

Description

Gene Name	CD3e molecule, epsilon (CD3-TCR complex)
Recommended Protein Name	T-cell surface glycoprotein CD3 epsilon chain
Lot No.	0901412Da529395
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human, mouse, rat
Immunogen	E.coli-derived human CD3 epsilon recombinant protein (Position: D23-I207). Human CD3 epsilon shares 65% amino acid (aa) sequence identity with mouse CD3 epsilon.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1µg/ml	Hu, Ms, Rat	By Heat
Immunohistochemistry (Frozen Section)	0.5-1µg/ml	Ms, Rat	-
Immunocytochemistry	0.5-1µg/ml	Hu	-

WB: The detection limit for CD3 epsilon is approximately 0.25ng/lane under reducing conditions.

Tested Species: In-house tested species with positive results.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P), IHC(F) and ICC.

Background

CD3e molecule, epsilon also known as CD3E is a polypeptide which in humans is encoded by the CD3E gene which resides on chromosome 11. It is mapped to 11q23.3. The protein encoded by this gene is the CD3-epsilon polypeptide, which together with CD3-gamma, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development.

Reference

1. Clevers HC, Dunlap S, Wileman TE, Terhorst C (November 1988). "Human CD3-epsilon gene contains three minixons and is transcribed from a non-TATA promoter". Proc. Natl. Acad. Sci. U.S.A. 85(21): 8156–60.
2. "Entrez Gene: CD3E CD3e molecule, epsilon (CD3-TCR complex)"
3. Gold DP, Puck JM, Pettey CL, Cho M, Coligan J, Woody JN, Terhorst C (1986). "Isolation of cDNA clones encoding the 20K non-glycosylated polypeptide chain of the human T-cell receptor/T3 complex". Nature 321 (6068): 431–4.