

## CD45RO (PN0469) Nb-FC recombinant antibody

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| <b>Catalog No :</b>          | YA0374   |
| <b>Reactivity :</b>          | Human  |
| <b>Applications :</b>        | ELISA;FCM  |
| <b>Target :</b>              | CD45RO   |
| <b>Gene Name :</b>           | PTPRC  |
| <b>Protein Name :</b>        | Receptor-type tyrosine-protein phosphatase C   |
| <b>Human Gene Id :</b>       | 5788   |
| <b>Human Swiss Prot No :</b> | P08575   |
| <b>Immunogen :</b>           | Purified recombinant Human CD45RO  |
| <b>Specificity :</b>         | This recombinant monoclonal antibody can detects endogenous levels of CD45RO protein.  |
| <b>Formulation :</b>         | Phosphate-buffered solution  |
| <b>Source :</b>              | Camel, chimeric fusion of Nanobody (VHH) and mouse IgG1 Fc domain , recombinantly produced from 293F cell                                    |
| <b>Dilution :</b>            | ELISA 1:5000-100000;FCM 1-2µg/Test   |
| <b>Purification :</b>        | Recombinant Expression and Affinity purified   |
| <b>Concentration :</b>       | Please check the information on the tube   |
| <b>Storage Stability :</b>   | -15°C to -25°C/1 year(Avoid freeze / thaw cycles)  |
| <b>Cell Pathway :</b>        | JAK/STAT pathway   |
| <b>Background :</b>          | 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 cell growth, differentiation, mitosis, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported.

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**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).(Microbial infection) Acts as a receptor for human cytomegalovirus protein UL11 and mediates binding of UL11 to T-cells, leading to reduced induction of tyrosine phosphorylation of multiple signaling proteins upon T-cell receptor stimulation and impaired T-cell proliferation.

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**Subcellular Location :**

Cell membrane ; Single-pass type I membrane protein . Membrane raft . Colocalized with DPP4 in membrane rafts.

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**Expression :**

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.

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