

### 30-2776: Anti-Hu CD45 FITC

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	2D1
<b>Application :</b>	FACS
<b>Reactivity :</b>	Human
<b>Conjugate :</b>	FITC
<b>Gene :</b>	PTPRC
<b>Gene ID :</b>	5788
<b>Uniprot ID :</b>	P08575
<b>Alternative Name :</b>	protein tyrosine phosphatase receptor type C LCA, T200, LY5, B220, GP180, TPC
<b>Immunogen Information :</b>	Human peripheral blood mononuclear cells

#### Description

CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing; these isoforms differ in their extracellular domains, whereas they share identical transmembrane and cytoplasmic domains. These isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. Besides the role in immunoreceptor signaling, CD45 is important in promoting cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis.

**Specificity :** The mouse monoclonal antibody 2D1 reacts with an extracellular epitope of all alternative forms of human CD45 antigen (Leukocyte Common Antigen), a 180-220 kDa single chain type I transmembrane protein expressed at high level on all cells of hematopoietic origin, except from erythrocytes and platelets.

#### Product Info

<b>Amount :</b>	100 Tests
<b>Purification :</b>	Purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.
<b>Content :</b>	Storage Buffer: Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
<b>Storage condition :</b>	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

#### Application Note

**Flow cytometry:** The reagent is designed for analysis of human blood cells using 4  $\mu$ l reagent / 100  $\mu$ l of whole blood or  $10^6$  cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.