

## Product datasheet

# Recombinant Human CD45 protein ab177717

1 Image

### Description

|                                   |  |  |
|-----------------------------------|--|--|
| <b>Product name</b>               | Recombinant Human CD45 protein   |  |
| <b>Purity</b>                     | > 95 % SDS-PAGE.<br>ab177717 was purified using conventional chromatography techniques.  |  |
| <b>Expression system</b>          | Escherichia coli   |  |
| <b>Accession</b>                  | <a href="#">NP_002829</a>  |  |
| <b>Protein length</b>             | Protein fragment   |  |
| <b>Animal free</b>                | No   |  |
| <b>Nature</b>                     | Recombinant  |  |
| <b>Species</b>                    | Human  |  |
| <b>Sequence</b>                   | MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD<br>KDRWGSVMIA AQQPLKETIG DFWQMIFQRK<br>VKVMMLTEL KHGDQEICAQ YWGEKQTYG<br>DIEVDLKDTD KSSTYTLRVF ELRHSKRKDS<br>RTVYQYQYTN WSVEQLPAEP KELISMIQVV<br>KQKLPQKNSS EGNKHHKSTP LLIHCRDGSQ<br>QTGIFCALLN LLESAETEEV VDIFQVVKAL<br>RKARPGMVST FEQYQFLYDV IASTYPAQNG<br>QVKKNNHQED KIEFDNE |  |
| <b>Predicted molecular weight</b> | 30 kDa including tags  |  |
| <b>Amino acids</b>                | 1031 to 1251   |  |
| <b>Tags</b>                       | His-DDDDK tag N-Terminus   |  |

### Specifications

Our [Abpromise guarantee](#) covers the use of **ab177717** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

|                          |                               |
|--------------------------|-------------------------------|
| <b>Applications</b>      | Mass Spectrometry<br>SDS-PAGE |
| <b>Mass spectrometry</b> | MALDI-TOF                     |
| <b>Form</b>              | Liquid                        |

## Preparation and Storage

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### Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.32% Tris HCl, 0.88% Sodium chloride, 10% Glycerol (glycerin, glycerine), 0.02% DTT

## General Info

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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.

### Involvement in disease

Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)B(+)NK(+)) SCID [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative disorder characterized by the gradual accumulation of focal plaques of demyelination particularly in the periventricular areas of the brain. Peripheral nerves are not affected. Onset usually in third or fourth decade with intermittent progression over an extended period. The cause is still uncertain.

### Sequence similarities

Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily. Contains 2 fibronectin type-III domains. Contains 2 tyrosine-protein phosphatase domains.

### Domain

The first PTPase domain interacts with SKAP1.

### Post-translational modifications

Heavily N- and O-glycosylated.

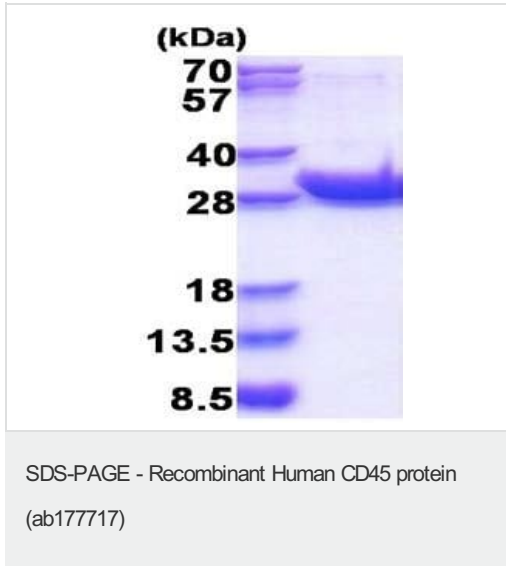
### Cellular localization

Membrane. Membrane raft. Colocalized with DPP4 in membrane rafts.

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## Images

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15% SDS-PAGE analysis of ab177717 (3µg).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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