

Product datasheet

Recombinant human CD45 protein ab94517

2 Images

Description

Product name	Recombinant human CD45 protein
Biological activity	The specific activity of ab94517 is 11,500 nmol phosphate released /min/mg
Purity	> 90 % SDS-PAGE. >90% as determined by densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Amino acids	604 to 1304

Specifications

Our [Abpromise guarantee](#) covers the use of **ab94517** in the following tested applications.

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

Applications	Functional Studies Western blot SDS-PAGE
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Form	Liquid
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Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.00 Preservative: 1.02% Imidazole Constituents: 1.045% MOPS, 0.00174% PMSF, 0.00385% DTT, 25% Glycerol (glycerin, glycerine), 1.74% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

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.

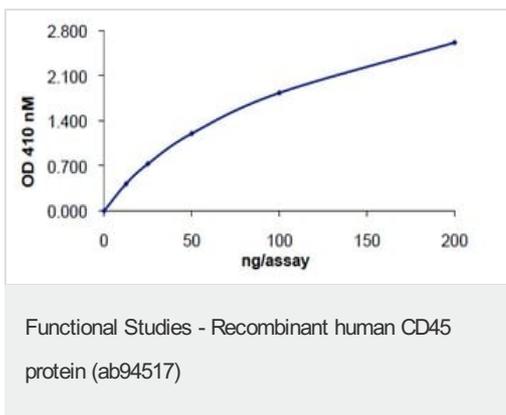
Post-translational modifications

Heavily N- and O-glycosylated.

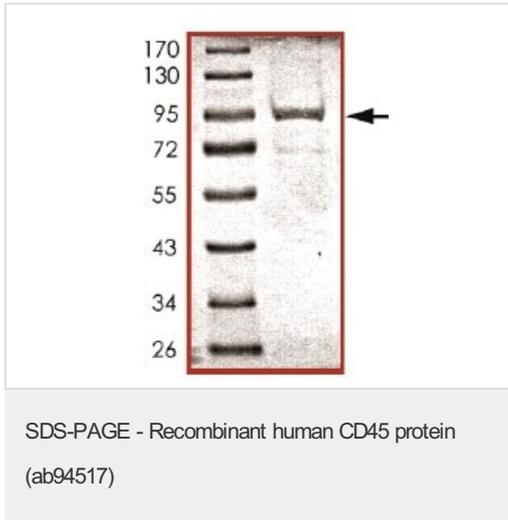
Cellular localization

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

Images



ab94517 in a Sample Kinase Activity Plot.



ab94517 analysed by SDS PAGE at approximately 95kDa

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

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