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Datasheet for ABIN3112199  
**CD45 Protein (AA 24-1304) (rho-1D4 tag)**

Overview

Quantity:	1 mg
Target:	CD45 (PTPRC)
Protein Characteristics:	AA 24-1304
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CD45 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	QSPTPSPTGL TTAKMPSVPL SSDPLPHTTT AFSPASTFER ENDFSETTTS LSPDNTSTQV SPDSLNASA FNTTGVSSVQ TPHLPHTADS QTPSAGTDTQ TFSGSAANAK LNPTPGSNAI SDVPGERSTA STFPTDPVSP LTTTSLAHH SSAALPARTS NTTITANTSD AYLNASSETTT LSPSGSAVIS TTTIATTPSK PTCDEKYANI TVDYLYNKET KLFTAKLNVN ENVECGNNTC TNNEVHNLTE CKNASVSISH NSCTAPDKTL ILDVPPGVEK FQLHDCTQVE KADTTICKLW KNIETFTCDT QNITYRFQCG NMIFDNKEIK LENLEPEHEY KCDSEILYNN HKFTNASKII KTDGFGSPGEP QIIFCRSEAA HQGVITWNPP QRSFHNFTLC YIKETEKDCL NLDKNLIKYD LQNLKPYTKY VLSLHAYIIA KVQRNGSAAM CHFTTKSAPP SQVWNMTVSM TSDNSMHVKC RPPRDRNGPH ERYHLEVEAG NTLVRNESHK NCDFRVKDLQ YSTDYTFKAY FHNGDYPGEP FILHHSTSYN SKALIAFLAF LIIVTSIAL VVLYKIYDLH KKRSCNLDEQ QELVERDDEK QLMNVEPIHA DILLETYKRK IADEGRLFLA EFQSIPRVFS KFPIKEARKP FNQKNRYVD ILPYDYNRVE LSEINGDAGS NYINASYIDG FKEPRKYIAA QGPRDETVDV FWRMIWEQKA
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TVIVMVTRCE EGNRNKCAEY WPSMEEGTRA FGDVVVKINQ HKRCPDYIIQ KLNIVNKKEK  
ATGREVTHIQ FTSPWDHGVP EDPHLLLKLR RRVNAFSNFF SGPIVVHCSA GVGRTGTYIG  
IDAMLEGLEA ENKVDVYGYV VKLRRQRCLM VQVEAQYILI HQALVEYNQF GETEVNLSL  
HPYLHNMKKR DPPSESPLE AEFQRLPSYR SWRTQHIGNQ EENKSKNRNS NVIPYDYNRV  
PLKHELEMSK ESEHDSDESS DDDSDSEEPS KYINASFIMS YWKPEVMIAA QGPLKETIGD  
FWQMIFQRKV KVIVMLTELK HGDQEICAQY WGEQKQTYGD IEVDLKDTDK SSTYTLRVFE  
LRHSKRKDSR TVYQYQYTNW SVEQLPAEPK ELISMIQVVK QKLPQKNSSE GNKHHKSTPL  
LIHCRDGSQQ TGIFCALLNL LESAETEEVV DIFQVVKALR KARPGMVSTF EQYQFLYDVI  
ASTYPAQNGQ VKKNNHQEDK IEFDNEVDKV KQDANCVNPL GAPEKLPEAK EQAEGSEPTS  
GTEGPEHSVN GPASPALNQG S

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Human PTPRC Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
  - State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification: Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

## Product Details

1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

## Target Details

Target:	CD45 (PTPRC)
Alternative Name:	PTPRC ( <a href="#">PTPRC Products</a> )
Background:	<p>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). {ECO:0000250, ECO:0000269 PubMed:11909961, ECO:0000269 PubMed:2845400}.</p>
Molecular Weight:	145.8 kDa Including tag.
UniProt:	<a href="#">P08575</a>
Pathways:	<a href="#">TCR Signaling</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Production of Molecular Mediator of Immune Response</a> , <a href="#">CXCR4-mediated Signaling Events</a> , <a href="#">BCR Signaling</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
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## Application Details

Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
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Restrictions:	For Research Use only
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## Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)