

Product datasheet

Recombinant Human CD133 protein ab160218

[2 References](#) [1 Image](#)

Description

Product name	Recombinant Human CD133 protein
Expression system	Wheat germ
Accession	<u>O43490-2</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Sequence

MALVLGSLLLLGLCGNSFSGGQPSSTDAPKAWNYELPAT
NYETQDSHKAG
PIGILFELVHIFLYVQPRDFPEDTLRKFLQKAYESKIDYDKI
VYYEAGI
ILCCVLGLLFIILMPLVGYFFCMCRCCNKCGGEMHQKQKE
NGPFLRKCF
ISLLVICIIISIGIFYGFVANHQVRTRIKRSRKLADSNFKDLRTL
LNETP
EQIKYLAQYNTTKDKAFTDLNSINSVLGGGILDRLRPNIIPVL
DEIKSM
ATAIKETKEALENMNSTLKSLHQQSTQLSSSLTSVKTSLRS
SLNDPLCLV
HPSSETCNSIRLSLSQLNSNPELRQLPPVDAELDNVNNVL
RTDLDGLVQQ
GYQSLNDIPDRVQRQTTTVVAGIKRVLNSIGSDIDNVTQRLP
IQDILSAF
SVYVNNTESYIHRNLPLEEYDSYWWLGGLVICSLTLIMIFY
YLGLLCG
VCGYDRHATPTTRGCVSNTGGVFLMVGVLGSLFLFCWILMII
VVLTFVFGA
NVEKLICEPYTSKELFRVLDTPYLLNEDWEYLSGKLFNKS
KMKLTFEQV
YSDCKKNRGTYGLHLQNSFNISEHLNINEHTGSISSELES
KVNLNIFL
LGAAGRKNLQDFAACGIDRMNYDSYLAQTGKSPAGVNULL
SFAYDLEAKAN
SLPPGNLRNSLKRDAQTIKTIHQQRVLPVIEQSLSTLYQSVKI
LQRTGNGL

LERVTRILASLDFAQNFITNNTSSVIEETKKYGRTIIGYFEHYL
QWIEF
SISEKVASCKPVATALDТАVDVFLCSYIIDPLNLFWFGIGKA
TVFLLPAL
IFAVKLAKYRRMSEDVYDDVETIPMKNMENGNGYHKD
HVYGIHNPVM TSPSQH

Predicted molecular weight	123 kDa including tags
Amino acids	1 to 856
Tags	GST tag N-Terminus
Additional sequence information	AAH12089.1.

Specifications

Our **Abpromise guarantee** covers the use of **ab160218** in the following tested applications.

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

Applications	Western blot ELISA SDS-PAGE
Form	Liquid

Additional notes

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. Constituents: 0.31% Glutathione, 0.79% Tris HCl
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General Info

Function	May play a role in cell differentiation, proliferation and apoptosis (PubMed:24556617). Binds cholesterol in cholesterol-containing plasma membrane microdomains and may play a role in the organization of the apical plasma membrane in epithelial cells. During early retinal development acts as a key regulator of disk morphogenesis. Involved in regulation of MAPK and Akt signaling pathways. In neuroblastoma cells suppresses cell differentiation such as neurite outgrowth in a RET-dependent manner (PubMed:20818439).
Tissue specificity	Isoform 1 is selectively expressed on CD34 hematopoietic stem and progenitor cells in adult and fetal bone marrow, fetal liver, cord blood and adult peripheral blood. Isoform 1 is not detected on other blood cells. Isoform 1 is also expressed in a number of non-lymphoid tissues including retina, pancreas, placenta, kidney, liver, lung, brain and heart. Found in saliva within small membrane particles. Isoform 2 is predominantly expressed in fetal liver, skeletal muscle, kidney, and heart as well as adult pancreas, kidney, liver, lung, and placenta. Isoform 2 is highly expressed in fetal liver, low in bone marrow, and barely detectable in peripheral blood. Isoform 2 is expressed on hematopoietic stem cells and in epidermal basal cells (at protein level). Expressed in adult retina by rod and cone photoreceptor cells (at protein level).
Involvement in disease	Retinitis pigmentosa 41

Cone-rod dystrophy 12
Stargardt disease 4
Retinal macular dystrophy 2

Sequence similarities

Belongs to the prominin family.

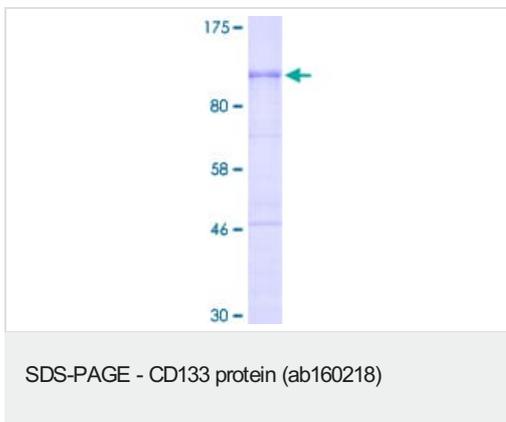
Post-translational modifications

Isoform 1 and isoform 2 are glycosylated.
Acetylation at Lys-225, Lys-257 and Lys-264 by NAT8 and NAT8B may control PROM1 protein expression and its function in cell apoptosis.

Cellular localization

Apical cell membrane. Cell projection, microvillus membrane. Cell projection, cilium, photoreceptor outer segment. Endoplasmic reticulum. Endoplasmic reticulum-Golgi intermediate compartment. Found in extracellular membrane particles in various body fluids such as cerebrospinal fluid, saliva, seminal fluid and urine.

Images



12.5% SDS-PAGE analysis of ab160218 stained with Coomassie Blue.

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