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Datasheet for ABIN3094838

Poliovirus Receptor Protein (PVR) (AA 21-343) (His tag)

Overview

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| Quantity: | 1 mg |
| Target: | Poliovirus Receptor (PVR) |
| Protein Characteristics: | AA 21-343 |
| Origin: | Human |
| Source: | Insect Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This Poliovirus Receptor protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys) |

Product Details

Sequence: WPPPGTGDVV VQAPTQVPGF LGDSVTLPCY LQVPNMEVTH VSQLTWARHG ESGSMAVFHQ
TQGPSYSESK RLEFVAARLG AELRNASLRM FGLRVEDEGN YTCLFVTFPQ GSRSDIWLRL
VLAKPQNTAE VQKVQLTGEP VPMARCVSTG GRPPAQITWH SDLGGMPNTS QVPGFLSGTV
TVTSLWILVP SSQVDGKNVT CKVEHESFEK PQLLTVNLTV YYPEVSISG YDNNWYLGQN
EATLTCDARS NPEPTGYNWS TTMGPLPPFA VAQGAQLLIR PVDKPINTTL ICNVTNALGA
RQAELTVQVK EGPPSEHSGI SRN

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 PVR 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).

Product Details

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.

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| Purification: | Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. 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

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| Target: | Poliovirus Receptor (PVR) |
| Alternative Name: | PVR (PVR Products) |
| Background: | Mediates NK cell adhesion and triggers NK cell effector functions. Binds two different NK cell |

Target Details

receptors: CD96 and CD226. These interactions accumulates at the cell-cell contact site, leading to the formation of a mature immunological synapse between NK cell and target cell. This may trigger adhesion and secretion of lytic granules and IFN-gamma and activate cytotoxicity of activated NK cells. May also promote NK cell-target cell modular exchange, and PVR transfer to the NK cell. This transfer is more important in some tumor cells expressing a lot of PVR, and may trigger fratricide NK cell activation, providing tumors with a mechanism of immunoevasion. Plays a role in mediating tumor cell invasion and migration.

{ECO:0000269|PubMed:15471548, ECO:0000269|PubMed:15607800}., (Microbial infection)

Acts as a receptor for poliovirus. May play a role in axonal transport of poliovirus, by targeting virion-PVR-containing endocytic vesicles to the microtubular network through interaction with DYNLT1. This interaction would drive the virus-containing vesicle to the axonal retrograde transport (PubMed:2538245). Acts as a receptor for pseudorabies virus (PubMed:9616127). Is prevented to reach cell surface upon infection by human cytomegalovirus /HHV-5, presumably to escape immune recognition of infected cell by NK cells (PubMed:15640804).

{ECO:0000269|PubMed:15640804, ECO:0000269|PubMed:2538245, ECO:0000269|PubMed:9616127}.

Molecular Weight: 36.0 kDa Including tag.

UniProt: [P15151](#)

Pathways: [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Cell-Cell Junction Organization](#), [Cancer Immune Checkpoints](#), [SARS-CoV-2 Protein Interactome](#)

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 gurantee though.

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.

Restrictions: For Research Use only

Handling

Format: Liquid

Handling

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| 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) |