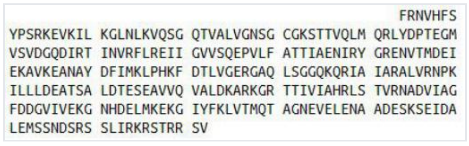
Permeability Glycoprotein (PGP) Homo Sapiens (Human) Recombinant Protein

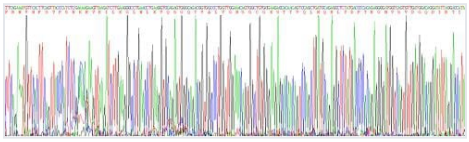
PRODUCT OVERVIEW

Product Name	Permeability Glycoprotein (Pgp), Recombinant Protein
Full Product Name	Recombinant Permeability Glycoprotein (Pgp)
Product Gene Name	Pgp recombinant protein
Host	E.coli
Species Reactivity	Homo sapiens (Human)
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Purity/Purification	> 97%
Concentration	Original Concentration: 200ug/mL (lot specific)
Preparation and Storage	**Storage:** Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. **Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: Pgp (MBS2006405) Immunogen: Pgp (MBS2010341)
Matching Pairs	APC-CY7 Conjugated Antibody: Pgp (MBS2057961) Immunogen: Pgp (MBS2010341)
Matching Pairs	PE Conjugated Antibody: Pgp (MBS2057962) Immunogen: Pgp (MBS2010341)
Matching Pairs	APC Conjugated Antibody: Pgp (MBS2057963) Immunogen: Pgp (MBS2010341)
Matching Pairs	Cy3 Conjugated Antibody: Pgp (MBS2057964) Immunogen: Pgp (MBS2010341)
Matching Pairs	FITC Conjugated Antibody: Pgp (MBS2057965) Immunogen: Pgp (MBS2010341)
Matching Pairs	HRP Conjugated Antibody: Pgp (MBS2057966) Immunogen: Pgp (MBS2010341)
Matching Pairs	Biotin Conjugated Antibody: Pgp (MBS2093631) Immunogen: Pgp (MBS2010341)
Molecular Weight	Predicted Molecular Mass: 57.9kDa Accurate Molecular Mass: 61kDa as determined by SDS-PAGE reducing conditions.
Chromosome Location	Chromosome: 7; NC_000007.13 (87133179..87342639, complement). Location: 7q21.12
OMIM	171050
3D Structure	ModBase 3D Structure for P08183

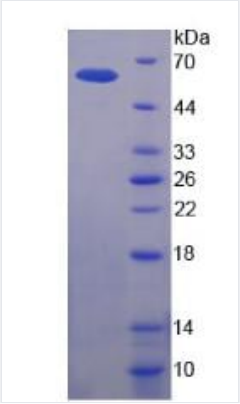
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Source	Prokaryotic expression
Residues	Phe394~Val672
Tags	N-terminal His and GST Tag
Subcellular Location	Membrane
Traits	Freeze-dried powder
Predicted isoelectric point	7.0
Phenomenon explanation	The possible reasons that the actual band size differs from the predicted are as follows: 1.Splice variants: Alternative splicing may create different sized proteins from the same gene. 2. Relative charge: The composition of amino acids may affects the charge of the protein. 3. Post-translational modification: Phosphorylation, glycosylation, methylation etc. 4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form. 5. Polymerization of the target protein: Dimerization, multimerization etc.
Usage	Reconstitute in ddH2O to a concentration of 0.1-1.0 mg/mL. Do not vortex.
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for Pgp recombinant protein	Positive Control; Immunogen; SDS-PAGE; Western Blot (WB)
Application Notes for Pgp recombinant protein	(May be suitable for use in other assays to be determined by the end user.)
Related Product Information for Pgp recombinant protein	MBS2010341 is a recombinant protein targeting Pgp. Also known as Recombinant Permeability Glycoprotein (Pgp). Reactive in Homo sapiens (Human). Host: E.coli.
Other Notes	Small volumes of Pgp recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Sequence of Pgp recombinant protein



Gene Sequencing (extract) of Pgp recombinant protein



SDS-Page of Pgp recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Pgp. It may not necessarily be applicable to this product.

NCBI GI #	42741659
NCBI GeneID	5243
NCBI Accession #	NP_000918.2
UniProt Primary Accession #	P08183
UniProt Secondary Accession #	Q12755; Q14812; A8K294
UniProt Related Accession #	P08183
GenBank Nucleotide #	NM_000927.4
NCBI Official Full Name	multidrug resistance protein 1
NCBI Official Synonym Full Names	ATP-binding cassette, sub-family B (MDR/TAP), member 1
NCBI Official Symbol	ABCB1
NCBI Official Synonym Symbols	CLCS; MDR1; P-GP; PGY1; ABC20; CD243; GP170
UniProt Protein Name	Multidrug resistance protein 1
UniProt Synonym Protein Names	ATP-binding cassette sub-family B member 1; P-glycoprotein 1
Protein Family	Glycerol-3-phosphate phosphatase
UniProt Gene Name	ABCB1
UniProt Synonym Gene Names	MDR1; PGY1
UniProt Entry Name	MDR1_HUMAN
NCBI Protein Information	multidrug resistance protein 1; P-glycoprotein 1; colchicin sensitivity; doxorubicin resistance
NCBI Summary for Pgp	The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance. The protein encoded by this gene is an ATP-dependent drug efflux pump for xenobiotic compounds with broad substrate specificity. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance to anticancer drugs. This protein also functions as a transporter in the blood-brain barrier. [provided by RefSeq, Jul 2008]
UniProt Comments for Pgp	ABCB1: Energy-dependent efflux pump responsible for decreased drug accumulation in multidrug-resistant cells. Belongs to the ABC transporter superfamily. ABCB family. Multidrug resistance exporter (TC 3.A.1.201) subfamily. Interacts with PSMB8. Protein type: EC 3.6.3.44; Transporter; Transporter, ABC family; Membrane protein, integral; Hydrolase; Cell adhesion; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 7q21.12 Cellular Component: cell surface; membrane; integral to membrane; plasma membrane Molecular Function: protein binding; ATPase activity, coupled to transmembrane movement of substances; transporter activity; ATP binding; xenobiotic-transporting ATPase activity Biological Process: response to drug; transport; multidrug transport; xenobiotic transport; G2/M transition of mitotic cell cycle; transmembrane transport Disease: Colchicine Resistance; Inflammatory Bowel Disease 13
Research Articles on Pgp	**1.** result from forensic cases suggests that ABCB1 polymorphisms are associated with an increased risk for completed suicides

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