

# Product Information

## MemDX™ Membrane Protein Human LRP2 (LDL receptor related protein 2) Full Length

Cat. No.: **MPC0650K**

This product is for research use only and is not intended for diagnostic use.

This product is a 521.9 kDa Human LRP2 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

### Product Specifications

#### Host Species

Human

#### Target Protein

LRP2

#### Protein Length

Full length

#### Protein Class

Transporter

#### Molecular Weight

521.9 kDa

#### TMD

1

#### Sequence

MDRGPAAVACTLLLALVACLAPASGQECDSAHFRCGSGHCIPADWRC DGT  
KDCSDDADEIGCAVVTCQQGYFKCQSEGQCIPNSWVCDQDQDCDDGSDER  
QDCSQSTCSSHQITCSNGQCIPSEYRCDHVRDCPDGADENDCQYPTCEQL  
TCDNGACYNTSQKCDWKVDCRDSSDEINTEICLHNEFSCGNGECIPRAY  
VCDHDNDCQDGSDEHACNYPTCGGYQFTCPSGRCIYQNWVCDGEDDCKDN  
GDEDGCESGPHDVHKCSPREWSCPESGRCISIKVCDGILDCPGREDENN  
TSTGKYCSMTLCSALNCQYQCHETPYGGACFCPPGYIINHNSRTCVEFD  
DCQIWGICDQKCESRPGRHLCHCEEGYILERGQYCKANDSFGEASIIFSN  
GRDLLIGDIHGRSFRILVESQNRGVAVGVAFHYHLQRVFWTDTVQNKVFS  
VDINGLNIQEVNLNVSVPENLAVDWVNNKIYLVETKVNRI DMVNLDGSY  
RVTLITENLGHPRGIAVDPTVGYLFFSDWESLSGEPKLERAFMDGSGNRKD  
LVKTKLGWPAGVTLDMISKRVYWVDSRFDYIETVTDGIQRKTVVHGGSL  
IPHPFGVSLFEGQVFFTDWTKMAVLKANKFTETNPQVYYQASLRPYGVTV  
YHSLRQPYATNPCKDNNGGCEQVCVLSHRTDNDGLGFRCKCTFGFQLD TD  
ERHCIAVQNFLIFSSQVAIRGIPFTLSTQEDVMVPVSGNPSFFVGIDFDA  
QDSTIFFSDMSKHMIFKQKIDGTGREILANRVENVESLAFDWISKNL YW  
TDSHYKSISVMRLADKTRRTVVQYLLNPNRSVVVHPFAGYLFFTDWFRPAK  
IMRAWSDGSHLLPVINTTLGWPNGLAIDWAASRLYWVDAYFDKIEHSTFD  
GLDRRRLGHIEQMTHPFGLAIFGEHLFFTDWRLGAIIRVRKADGGEMTVI  
RSGIAYILHLKSYDVNIQTGSNACNQPTHPNGDCSHFCFPVPNFQRVCGC  
PYGMRLASNHLTCEGDPTNEPPTQCGLFSFPCKNGRCVPNYYLCDGVDD

CHDNSDEQLCGTLNNTCSSSAFTCGHGECIPAHWRCDKRND CVDGSDEHN  
CPTHAPASCLDTQYTCDNHQCSKNWVCDTDNDCGDGSDEKNCNSTETCQ  
PSQFNCPNHRCIDLSFVCDGDKDCVDGSDEVGCVLNCTASQFKCASGDKC  
IGVTNRCDGVFDCSDNSDEAGCPTRPPGMCHSDEFQCCQEDGICIPNFWEC  
DGHDPCLYGSDEHNACVPKTCPSYFHCNNGNCIHRWLCDRDND CGDMS  
DEKDCPTQPFRCPSWQWQCLGHNICVNL SVVCDGIFDCPNGTDESPLCNG  
NSCSDFNNGGCTHECVQEPFGAKCLCPLGFLANDSKTCEDIDECDILGSC  
SQHCYNMRGSRFCSDTGYMLES DGR TCKVTASELLLLLVASQNKIIADS  
VTSQVHNIYSLVENGSIYAVDFDSISGRIFWSDATQGKTWSAFQNGTDR  
RVVFDSSIILTETIAIDWVGRNLYWTDYALETIEVSKIDGSHRTVLISK  
LTNPRGLALDPRMNEHLLFWSDWGHHPRIERASMDGSMRTVIVQDKIFWP  
CGLTIDYPNRLLYFMDSYLDYMDFCDYNGHHRRQVIASDLIRHPYALT  
FEDSVYWTD RATTRVMRANKWHGGNQSVVMYNIQWPLGIVAVHPSKQPNS  
VNPCAFSRCSHLCLLSSQGPHFYSCVCPSGWSLSPDLLNCLRDDQPFLIT  
VRQHIIFGISLNPEVKSNDAMVPIAGIQNGLDVEFD DAEQYIYWVENPGE  
IHRVKTDG TNRTVFASISMVGPSMNLALDWISRNLYSTNPRTQSIEVLT  
HGDIRYRKT LIANDGTALGVGFPIGITVDPARGKLYWSDQGTDSGVPKI  
ASANMDGTSVKTLFTGNLEHLECVTLDIEEQKLYWAVTGRGVIERGNVDG  
TDRMILVHQLSHPWGIAVHDSFLYTTDEQYEVIERVDKATGANKIVLRDN  
VPNLRGLQVYHRRNAEAESSNGCSNMMNACQQICLPVPGGLFSCACATGFK  
LNPDNRSCSPYNSFIVVSMLSAIRGFSLELSDHSETMVPVAGQGRNALHV  
DVDVSSGFIYWCD FSSSVASDN AIRRIKPDGSSLMNIVTHGIGENGVRGI  
AVDWVAGNLYFTNAFVSETLIEVLRINTTYRRVLLKVTVDMPRHIVVDPK  
NRYLFWADYGQRPKIERSFLDCTNRTVLVSEGIVTPRGLAVDRSDGYVYW  
VDDSLDIARIRINGENSEVIRYGSRYPTPYGITVFENSIWVDRNLKKI  
FQASKEPENTEPPTVIRDNINWLRDVTIFDKQVQPRSPA EVNNNPCLENN  
GGCSHLCFALPGLHTPKCDCAFGLTQSDGKNCAISTENFLIFALSNSLRS  
LHLDPENHSPPFQTINVERTVMSLDYDSVSDRIYFTQNLASGVGQISYAT  
LSSGIHTPTVIASGIGTADGIAFDWITRRIYSDYLNQMINSMAEDGSNR  
TVIARVPKPRAIVLDPCQGYLYWADWDTHAKIERATLGGNFRVPIVNSSL  
VMPSGLTLDYEEDLLYWVDASLQRIERSTLTGVDREVIVNAAVHAFGLTL  
YGQYIYWTDLYTQRIYRANKYDGSQGIAMTTNLLSQPRGINTVVKNQKQQ  
CNNPCEQFNNGGCSHICAPGPNGAECQCPHEGNWYLANNRKHCIVDNGERC  
GASSFTCSNGRCISEEWKCDNDND CGDGSDEMESVCALHTCSPTAFTCAN  
GRCVQYSYRCDYND CGDGSDEAGCLFRDCNATTEFCMNNRRCIPREFIC  
NGVDNCHDNNTSDEKNCPDRTCQSGYTKCHNSNICIPRVYLCGDND CGD  
NSDENPTYCTTHTCSSSEFQCASGRICIPQHWYCDQETDCFDASDEPASC  
HSERTCLADEFKCDGGRCIPSEWICDGDND CGDMSDEDKRHQCQNQNCSD  
SEFLCVNDRPPDRRCIPQSWVCDGDV DCTDGYDENQNCTRRTCSENEFTC  
GYGLCIPKIFRCDRHND CGDYSDERGCLYQTCQQNQFTCQNGRCISKTFV  
CDEDND CGDGSDELMLHLCHTPEPTCPPHEFKCDNGRCIEMMKLCNHLDDC  
LDNSDEKGCGINECHDPSISGCDHNCTDTLTSFYCSCRPGYKLMSDKRTC  
VDIDECTEMPVFC SQKCENVIGSYICKCAPGYLREPDGKTCRQNSNIEPY  
LIFSNRYYLRLNTIDGYFYSLILEGLDNVVALDFDRVEKRLYWIDTQRQV  
IERMFLNKTNKETIINHRLPAAESLAVDWVSRKLYWLDARLDGLFVSDLN  
GGHRRMLAQHCVDANNTFCFDNPRGLALHPQYGYLYWADWGH RAYIGRVG  
MDGTNKS VIISTKLEWPNGITIDYTDNLLYWADAHLGYIEYSDLEGHHRH  
TVYDGALPHPFATIFEDTIYWDWNTRTVEKG NKYDGSNRQTLVNTTHR  
PFDIHVYHPYRQPIVSNPCGTNNGGCSHLCLIKPGGKGFTCECPD D FRTL  
QLSGSTYCMPCMCSSTQFLCANNEKCIPIWWKCDGQKDCSDGSDELALCPQ  
RFCRLGQFQCSDGNCTSPQTLCAHQNC PDGSEDRLLCENHHCD SNEWQ  
CANKRCIPESWQCDTFND CEDNSDEDSSH CASRTC RPQGFR CANGRCIPQ  
AWKCDVDND CGDHSDEPIECMSSAHLCDNFTEFSCKTNYRCIPKWAVCN  
GVDDCRDNDSEGECEERTCHPVGD FRCKNHHCIPLRWQCDGQND CGDND  
EENCAPRECTESEFRVCVNRQOCIPSRWICDHYND CGDNSDERDCEMRTCHP  
EYFQCTSGHCVHSELKCDGSADCLDASDEADCPTRFPDGAYCQATMFECK  
NHVCIPPYWKCDGDDDCGDGSDEELHLCLDVPCNSPNRFRCDNNRCIYSH  
EVCNGVDDCGDGTDETEEHCRKPTPKPCTEY EYKCGNGHCIPH DNVCDDA  
DDCGDWSDELGCNK GKERTCAENICEQNCTQLNEGGFIC SCTAGFETNVF  
DRTSCLDINECEQFGTCPQHCRNTKGSYECVCADGFTSMSDRPGKRCAAE  
GSSPLLLL PDNVIRIRKYNLSSERFSEYLQDEEYIQAVDYDWD PKDIGLSV  
VYYTVRGEGRF GAIKRAYIPNFESGRNNLVQEVDLKLKYVMQPDGIAVD  
WVGRHIYWS DVKNKRIEVAKLDGRYRKWLISTDL DQPAIAVNP KLGLMF  
WTDWGKEPKIESAWMNGEDRNILVFEDLGWPTGLSIDYLNNDRIYWSDFK  
EDVIETIKYDGTDRRVIAKEAMNPYSLDIFEDQLYWISKEKGEVWKQNK  
GQGKKEKTLVVPWLTVQVRIFHQLRYNKSVPNLCKQICSHLCLLRPGGYS

CACPQGSSFIEGSTTECDAAIELPINLPPPCRCMHGGNCYFDETDLPKCK  
CPSGYTGKYCEMAFSKGISPGTTAVAVLLTILLIVVIGALAIAGFFHYRR  
TGSLLPALPKLPSLSSLVKPSENGNGVTFRSGADLNMDIGVSGFGPETA  
DRSMAMSEDFVMEMGKQPIIFENPMYSARDSAVKVVQPIQVTVSENV  
DNK  
NYGSPINPSEIVPETNPTSPAADGTQVTKWNLFKRKSKQTTNFENPIYA  
Q  
MENEQKESVAATPPSPSLPAKPKPPSRRDPTPTYSATEDTFKDTANLVK  
EDSEV

## Product Description

### Expression Systems

HEK293

### Tag

Based on specific requirements

### Protein Format

Detergent or based on specific requirements

### Form

Liquid

### Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

## Target

### Target Protein

LRP2

### Full Name

LDL receptor related protein 2

### Introduction

The protein encoded by this gene, low density lipoprotein-related protein 2 (LRP2) or megalin, is a multi-ligand endocytic receptor that is expressed in many different tissues but primarily in absorptive epithelial tissues such as the kidney. This glycoprotein has a large amino-terminal extracellular domain, a single transmembrane domain, and a short carboxy-terminal cytoplasmic tail. The extracellular ligand-binding-domains bind diverse macromolecules including albumin, apolipoproteins B and E, and lipoprotein lipase. The LRP2 protein is critical for the reuptake of numerous ligands, including lipoproteins, sterols, vitamin-binding proteins, and hormones. This protein also has a role in cell-signaling; extracellular ligands include parathyroid hormones and the morphogen sonic hedgehog while cytosolic ligands include MAP kinase scaffold proteins and JNK interacting proteins. Recycling of this membrane receptor is regulated by phosphorylation of its cytoplasmic domain. Mutations in this gene cause Donnai-Barrow syndrome (DBS) and facio-oculoacoustico-renal syndrome (FOAR).

### Alternative Names

DBS; GP330; LRP-2; low-density lipoprotein receptor-related protein 2; Heymann nephritis antigen homolog; calcium sensor protein; glycoprotein 330; megalin; LRP2; LDL receptor related protein 2

### Gene ID

[4036](#)

### UniProt ID

[P98164](#)