



Recombinant Human LYST Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50651

Size: 10ug, 100ug

Protein Name: Lysosomal-trafficking regulator (Beige homolog)

Synonym: LYST, CHS, CHS1

UniProt ID: Q99698

UniProt Link: www.uniprot.org/uniprotkb/Q99698/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 3801 AA

Molecular Weight: 429 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSTDNSNLAREFLTDVNRLCNAVVRVEAREEEEEETHMATLGQYL VHGRGFLLLT KLNSIIDQALT
CREELLTLLLSLLPLVWKIPVQEEKATDFNLPLSADIILTKEKNSSSQRSTQEKLHLEGSALSSQVSAK
VNVFRKSRQRKITHRYSVRDARKTQLSTSDSEANSDEKGIAMNKHRRPHLLHHFLT SFPKQDHPK
AKLDRLATKEQTPPDAMALENSREIIPRQGSNTDILSEPAALSVISNMNNSPFDLCHVLLSLLEKVCKF
DVTLNHNSPLAASVPTLT EFLAGFGDCCSLSDNLES RVVSAGWTEEPVALIQRMLFRTVLHLLSVD
VSTAEMMPENLRKNLT ELLRAALKIRICLEKQPD PFAPRQKKT LQEVQEDFVFSKYRHRALLPELLE
GVLQILICCLQSAASNPFYFSQAMD LVQEFIQHHGFNL FETAVLQMEWL VLRDGVPEASEHLKALIN
SVMKIMSTVKVKSEQLHHS MCTRKRHRRC EYSHFMHHRDL SGLLVSAFKNQVSKNPFEETADG
DVYYPERCCCCIAVCAHQCLRL LQQASLSSTCVQILSGVHNIGICCCMDPKSVIIPLLHAFKLPALKNFQ
QHILNILNKLILDQLGGAEISPKIKKAACNICTVDS DQLAQLEETLQGNLCDAELSSSLSSPSYRFQGIL
PSSGSEDLLWKWDALKAYQNFVFEEDRLHSIQIANHICNLIQKGNIVVQWKLYNYIFNPVLQRGVELA
HHCQHLSVTS AQSHVCSHHNQCLPQDVLQIYVKTLPI LLKSRVIRDLFLSCNGVSQIIELNCLNGIRSH
SLKAFETLIISLGEQQKDASVPDIDGIDIEQKELSSVHVGT SFHHQQAYS DSPQSLSKFYAGLKEAYPK
RRKTVNQDVHINTINLFLCVAFLCVSKEAESDRESANDSEDTSGYDSTASEPLSHMLPCISLES LVLP
SPEHMHQAADIWSMCRWIYMLSSVFQKQFYRLGGFRVCHKLIFMIIQKLFRSHKEEQGKKEGDTSV
NENQDLNRISQPKRTMKEDLLSLAIKSDPISELGSLKKSADSLGKLELQHISSINVEEV SATEAAP EE
AKLFTSQESETSLQSIRLLEALLAICLHGARTSQQKMELELPNQNL SVESILFEMRDHLSQSKVIETQL
AKPLFDALLRVALGNYSADFEHNDAMTEKSHQSAEELSSQPGDFSEEAE DSQCCSFKLLVEEEGYE
ADSESNPEDGETQDDGVDLKSETEGFSASSSPNDLLENLTQGEI IYPEICMLELNLLSASKAKLDVLA



HVFESFLKIIRQKEKNVFLLMQQGTVKNLLGGFLSILTQDDSDFFQACQRVLDLLVSLMSSRTCSEEL
TLLLRIFLEKSPCTKILLGILKIIESDTTMSPSQYLTFPLLHAPNLSNGVSSQKYPGILNSKAMGLLRRA
RVSRSKKEADRESFPHRLSSWHIAPVHLPLLQNCWPHLSEGFVSLSLWFNVECIHEAESTTEK GK
KIKKRNSKSLILPDSSFDGTESDRPEGAEYINPGERLIEEGCIHISLGSKALMIQVWADPHNATLIFRVC
MDSNDDMKAVLLAQVESQENIFLPSKWQHLVLTYLQQPQGKRRIHGKISIWVSGQRKPDVTLDFML
PRKTSLSSDSNKTFMIGHCLSSQEEFLQLAGKWDLGNLLLFNGAKVGSQEAFFLYACGPNHTSVM
PCKYGKPVNDYSKYINKEILRCEQIRELFMTKKDVIDIGLLIESLSVVYTTYCPAQYTIYEPVIRLKGQMK
TQLSQRPFSSKEVQSILLEPHHLKNLQPTHEYKTIQGILHEIGGTGIFVFLFARVVELSSCEETQALALRV
ILSLIKYNQQRVHELENCNGLSMIHQVLIKQKCIVGFIYILKTLLLEGCCGEDIIYMNENGEFKLDVDSNAII
QDVKLLLELLLDWKIWSKAEQGVWETLLAALEVLRADHHQQMFNIKQLLKAQVHHFLLTCQVLQE
YKEGQLTPMPREVCRSFVKIAEVLGSPDLELLTIIFNLLAVHPPTNTYVCHNPTNFYFSLHIDGKIF
QEKVRSIMYLRHSSSGGRSLMSPGFMVISPSGFTASPYEGENSSNIIPQMAAHMLRSRSLPAFPTS
SLLTQSQKLTGSLGCSIDRLQNIADTYVATQSKKQNSLGSSDTLKKGKEDAFISSCESAKTVCEMEAV
LSAQVSVSDVPKGVLGFPVVKADHKQLGAEPREDDSPGDESCPRRPDYLGKLASFQRSHSTIASL
GLAFPSQNGSAAVGRWPSLVDRNTDDWENFAYSLGYEPNYNRTASAHSVTEDCLVPICCGLYELLS
GVLLILPDVLLLEDVMDKLIQADTLLVLVNHPSPAIIQQGVIKLLDAYFARASKEQKDKFLKNRGFSLLAN
QLYLHRGTQELLECFIEMFFGRHIGLDEEDLEDVRNMGLFQKWSVIPILGLIETSLYDNILLHNALLLL
LQILNSCSKVADMLLDNGLLYVLCNTVAALNGLEKNIPMSEYKLLACDIQQLFIAVTIHACSSSGSQYF
RVIEDLIVMLGYLQNSKNKRTQNMAVALQLRVLQAAMEFIRTTANHDSSENLTDSLQSPSAPHHAVVQ
KRKSIAGPRKFPLAQTESLLMKMRSVANDELHVMMQRRMSQENPSQATETELAQRQLQRLTVLAVNR
IYQEFNSDIIDILRTPENVTSKTSVFQTEISEENIHHEQSSVFNPQKEIFTYLVGEGFKVSIGSSKASG
SKQQWTKILWSCKETFRMQLGRLLVHILSPAHAQAQERKQIFEIVHEPNHQEILRDCLSPSLQHGAQLV
LYLSELIHNHQGELTEEELGTAELLMNALKLCGHKCIPPSASTKADLIKMIKEEQKKYETEEGVNKA
WQKTVNNNQSLFQRLDSKSKDISKIAADITQAVSLSQGNERKKVIQHIRGMYKVDLSASRHWQELI
QQLTHDRAVWYDPIYYPTSWQLDPTGPNRERRRLQRCYLTIPNKYLLRDRQKSEDVVKPPLSYLF
EDKTHSSFSSTVKDKAASESIRVNRRCISVAPSRETAGELLLGKCGMYFVEDNASDTVESSSLQGEL
EPASFSWYEEIKEYHKRWVQLRDNAVEIFLTNGRTLLAFDNTKVRDDVYHNILTNLNLLEYGNI
TALTNLWYTGGITNFEYLTHLNKHAGRSFNDLMQYPVFPFILADYVSETLDLNDLLIYRNLSPKPIAVQY
KEKEDRYVDYKYLEEEYRKGAREDDPMPPVQPYHYGSHYSNSGTVLHFLVRMPPTKMFAYQD
QSFDIPDRTFHSTNTTWRLSSFESMTDVKELIPEFFYLPEFLVNREGFDFGVRQNGERNVHVNLPW
ARNDPRLFILHRQALESDYVSQNICQWIDLVFQYKQKQKASVQAINVFHPATYFGMDVSAVEDPVQ
RRALETMIKTYGQTPRQLFHMAHVSRRPGAKLNIEGELPAAVGLLVQFAFRETRREQVKEITYPSPLSWI
KGLKWGEYVGSPAPVPVVCFSQPHGERFGSLQALPTRAICGLSRNFCLLMTYSKEQGVRSMNST
DIQWSAILSWSGYADNLRKSKQSEPPVNFQSSQYQVTSCAWVPDSCQLFTGSKCGVITAYTNRF
TSSTPSEIEMETQIHLYGHTEEITSLFVCKPYSILISVSRDGTCTIWDNLNRLCYVQSLAGHKSPVTAVSA
SETSGDIATVCDASAGGSDLRLLWTVNGDLVGHVHCREIICSVAFSNQPEGVSINVIAGGLENGIVRL
WSTWDLKPVREITFPKSNKPIISLTFSCDGHHLTYTANS DGTVIAWCRKDQQRKQPMFYSLSSYAA
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3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Lysosomal-trafficking regulator (Beige homolog) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Adapter protein that regulates and/or fission of intracellular vesicles such as lysosomes (PubMed:11984006, PubMed:25216107). Might regulate trafficking of effectors involved in exocytosis (PubMed:25425525). In cytotoxic T-cells and natural killer (NK) cells, has role in the regulation of size, number and exocytosis of lytic granules (PubMed:26478006). In macrophages and dendritic cells, regulates phagosome maturation by controlling the conversion of early phagosomal compartments into late phagosomes (By similarity). In macrophages and dendritic cells, specifically involved in TLR3- and TLR4-induced production of pro-inflammatory cytokines by regulating the endosomal TLR3- TICAM1/TRIF and TLR4- TICAM1/TRIF signaling pathways (PubMed:27881733).

Subcellular Localization: Cytoplasm .

6. Notes

- Avoid repeated freeze- thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer- composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.