

Recombinant Human GGT1/GGT protein ab190382

Description

Product name	Recombinant Human GGT1/GGT protein
Purity	> 90 % SDS-PAGE. The final product was refolded using temperature shift inclusion body refolding technology and chromatographically purified.
Expression system	Escherichia coli
Accession	<u>P19440</u>
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	<p>MASMTGGQQMGRGHHHHHHGNLYFQGGESASKEPDNH VYTRAAVAADAKQ CSKIGRDALRDGGSADVDAIAALLCVGLMNAHSMGIGGGL FLTYNSTTR KAEVINAREVAPRLAFATMFNSSEQSQKGGLSVAVPGEIR GYELAHQRHG RLPWARLFQPSIQLARQGFPVGKGLAAALENKRTVIEQQP VLCEVFCRDR KVLREGERLTLPQLADTYETLAIEGAQAFYNGSLTAQVKDI QAAGGVT AEDLNYYRAELIEHPLNISLGDVVLYMPSAPLSGPVLALILNI LKGYNFS RESVESPEQKGLTYHRIVEAFRFAYAKRTLLGDPKFVDVT EVVRNMTSEF FAAQLRAQISDDTTHPISYYKPEFYTPDDGGTAHLSVVAED GSAVSATST INLYFGSKVRSPVSGILFNNEMDDFSSPSITNEFGVPPSPA NFIQPGKQP LSSMCPTIMVGQDGQVRMVVGAAGGTQITTATALAIYNLW FGYDVKRAV EEPRLHNQLLPNVTTVERNIDQAVTAALETRHHHTQIASTFI AVVQAMR TAGGWAAAASDSRKGGEPAKY</p>
Predicted molecular weight	62 kDa
Amino acids	28 to 569

Tags	His-T7 tag N-Terminus
Additional sequence information	NP_038347. Constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at N terminal.
Specifications	
Our <u>Abpromise guarantee</u> covers the use of ab190382 in the following tested applications.	
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.	
Applications	Functional Studies SDS-PAGE
Form	Liquid
Additional notes	This product was previously labelled as GGT1
Preparation and Storage	
Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 2% Tris HCl, 1% Potassium chloride, 0.01% DTT, 0.01% EDTA, 10% Glycerol, 10% Sodium chloride
General Info	
Function	Initiates extracellular glutathione (GSH) breakdown, provides cells with a local cysteine supply and contributes to maintain intracellular GSH level. It is part of the cell antioxidant defense mechanism. Catalyzes the transfer of the glutamyl moiety of glutathione to amino acids and dipeptide acceptors. Alternatively, glutathione can be hydrolyzed to give Cys-Gly and gamma glutamate. Isoform 3 seems to be inactive.
Tissue specificity	Detected in fetal and adult kidney and liver, adult pancreas, stomach, intestine, placenta and lung. Isoform 3 is lung-specific. There are several other tissue-specific forms that arise from alternative promoter usage but that produce the same protein.
Pathway	Sulfur metabolism; glutathione metabolism.
Involvement in disease	Defects in GGT1 are a cause of glutathionuria (GLUTH) [MIM:231950]; also known as gamma-glutamyltranspeptidase deficiency. It is an autosomal recessive disease.
Sequence similarities	Belongs to the gamma-glutamyltransferase family.
Post-translational modifications	N-glycosylated on both chains. Contains hexoses, hexosamines and sialic acid residues. Glycosylation profiles tested in kidney and liver tissues reveal the presence of tissue-specific and site-specific glycan composition, despite the overlap in composition among the N-glycans. A total of 36 glycan compositions, with 40 unique structures are observed. Up to 15 different glycans are observed at a single site, with site-specific variation in glycan composition. The difference in glycosylation profiles in the 2 tissues do not affect the enzyme activity.
Cellular localization	Membrane.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors