AGXT Antibody – Goat Polyclonal

PRODUCT OVERVIEW

Product Name	AGXT/AGT, Polyclonal Antibody
Full Product Name	Goat anti-AGXT/AGT Antibody
Product Gene Name	anti-AGXT antibody
Product Synonym Gene Name	AGT
Product Synonym Names	AGXT; alanine-glyoxylate aminotransferase; AGT; AGT1; AGXT1; PH1; SPAT; SPT; TLH6; L-alanine: glyoxylate aminotransferase 1; hepatic peroxisomal alanine: glyoxylate aminotransferase; serine-pyruvate aminotransferase; serine: pyruvate aminotransferase; AGXT antibody; alanine-glyoxylate aminotransferase antibody; AGT antibody; AGT1 antibody; AGXT1 antibody; PH1 antibody; SPAT antibody; SPT antibody; TLH6 antibody; L-alanine: glyoxylate aminotransferase 1 antibody; hepatic peroxisomal alanine: glyoxylate aminotransferase antibody; serine-pyruvate aminotransferase antibody; serine: pyruvate aminotransferase antibody; AGXT / AGT
Immunogen Sequence	DKAKKKMYSR K
Clonality	Polyclonal
Host	Goat
Species Reactivity	Expected from sequence similarity: Human
Form/Format	Supplied at 0.5 mg/ml in Tris saline, 0. 02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Purity/Purification	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Concentration	100ug specific antibody in 200ul (lot specific)
Preparation and Storage	Aliquot and store at -20 degree C. Minimize freezing and thawing.
Antibody/Peptide Pairs	AGXT / AGT peptide (MBS425827) is used for blocking the activity of AGXT/AGT antibody (MBS421765)
Molecular Weight	43,010 Da
OMIM	259900
Immunogen	Peptide with sequence C-DKAKKKMYSRK, from the internal region of the protein sequence according to NP_000021.1.
Epitope	Internal region
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Applications Tested/Suitable for anti-AGXT antibody	Peptide ELISA (EIA)
Application Notes for anti-AGXT antibody	Peptide ELISA: Antibody detection limit dilution 1: 2000. Western Blot: Preliminary experiments gave a faint 37kDa band in Human Liver lysates after 1ug/ml antibody staining. Please note that currently we cannot find an explanation in the literature for the band we observe given the calculated size of 43. 0kDa according to NP_000021.1. The 37kDa band was successfully blocked by incubation with the immunizing peptide.
Related Product Information for anti-AGXT antibody	MBS421765 is an antibody targeting AGXT. Also known as Goat anti-AGXT/AGT Antibody. Reactive in Expected from sequence similarity: Human. Host: Goat.
Other Notes	Small volumes of anti-AGXT antibody 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.

ADDITIONAL DETAILS

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

NCBI GI #	4557289
NCBI GeneID	189
NCBI Accession #	NP_000021.1
UniProt Secondary Accession #	Q53QU6
UniProt Related Accession #	P21549
GenBank Nucleotide #	NM_000030.2
NCBI Official Full Name	serine--pyruvate aminotransferase
NCBI Official Synonym Full Names	alanine-glyoxylate aminotransferase
NCBI Official Symbol	AGXT
NCBI Official Synonym Symbols	AGT; PH1; SPT; AGT1; SPAT; TLH6; AGXT1
UniProt Protein Name	Serine--pyruvate aminotransferase
UniProt Synonym Protein Names	Alanine--glyoxylate aminotransferase (EC:2.6.1.44); AGT
Protein Family	Serine--pyruvate aminotransferase
UniProt Gene Name	AGXT
UniProt Synonym Gene Names	AGT1; SPAT; SPT; AGT
UniProt Entry Name	SPYA_HUMAN
NCBI Protein Information	serine--pyruvate aminotransferase
NCBI Summary for AGXT	This gene is expressed only in the liver and the encoded protein is localized mostly in the peroxisomes, where it is involved in glyoxylate detoxification. Mutations in this gene, some of which alter subcellular targetting, have been associated with type I primary hyperoxaluria. [provided by RefSeq, Jul 2008]
UniProt Comments for AGXT	AGXT: Defects in AGXT are the cause of hyperoxaluria primary type 1 (HP1); also known as primary hyperoxaluria type I (PH1) and oxalosis I. HP1 is a rare autosomal recessive inborn error of glyoxylate metabolism characterized by increased excretion of oxalate and glycolate, and the progressive accumulation of insoluble calcium oxalate in the kidney and urinary tract. Belongs to the class-V pyridoxal-phosphate-dependent aminotransferase family. Protein type: Motility/polarity/chemotaxis; Transferase; Mitochondrial; Amino Acid Metabolism - alanine, aspartate and glutamate; EC 2.6.1.44; Amino Acid Metabolism - glycine, serine and threonine; EC 2.6.1.51 Chromosomal Location of Human Ortholog: 2q37.3 Cellular Component: mitochondrial matrix; peroxisomal matrix; peroxisome Molecular Function: alanine-glyoxylate transaminase activity; amino acid binding; protein binding; protein homodimerization activity; protein self-association; pyridoxal phosphate binding; receptor binding; serine-pyruvate transaminase activity; transaminase activity Biological Process: glycine biosynthetic process, by transamination of glyoxylate; glyoxylate catabolic process; glyoxylate metabolic process; L-alanine catabolic process; L-cysteine catabolic process; Notch signaling pathway; oxalic acid secretion; proteasomal protein catabolic process; pyruvate biosynthetic process; response to cAMP; response to glucocorticoid stimulus Disease: Hyperoxaluria, Primary, Type I
Research Articles on AGXT	**1.** In conclusion, this study of an unprecedented number of primary hyperoxaluria type 1 patients showed geno-phenotype associations that have not been previously reported.

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