PISD Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PISD, Polyclonal Antibody
Full Product Name	PISD Antibody
Product Gene Name	anti-PISD antibody
Product Synonym Names	DJ858B16; dJ858B16.2; DKFZp566G2246; Phosphatidylserine decarboxylase; Phosphatidylserine decarboxylase beta chain; Phosphatidylserine decarboxylase proenzyme; PISD; PISD_HUMAN; PSD; PSDC; PSSC
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Concentration	1mg/ml (lot specific)
Specificity	PISD Antibody detects endogenous levels of PISD.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	PISD peptide (MBS9633707) is used for blocking the activity of PISD antibody (MBS9631324)
Molecular Weight	409
OMIM	612770
3D Structure	ModBase 3D Structure for Q9UG56
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human PISD.
Conjugation	Unconjugated
Similarity	Belongs to the phosphatidylserine decarboxylase family. PSD-B subfamily. Eukaryotic type I sub-subfamily.
Post Translational Modifications	Is synthesized initially as an inactive proenzyme. Formation of the active enzyme involves a self-maturation process in which the active site pyruvoyl group is generated from an internal serine residue via an autocatalytic post-translational modification. Two non-identical subunits are generated from the proenzyme in this reaction, and the pyruvate is formed at the N-terminus of the alpha chain, which is derived from the carboxyl end of the proenzyme. The autoendoproteolytic cleavage occurs by a canonical serine protease mechanism, in which the side chain hydroxyl group of the serine supplies its oxygen atom to form the C-terminus of the beta chain, while the remainder of the serine residue undergoes an oxidative deamination to produce ammonia and the pyruvoyl prosthetic group on the alpha chain. During this reaction, the Ser that is part of the protease active site of the proenzyme becomes the pyruvoyl prosthetic group, which constitutes an essential element of the active site of the mature decarboxylase.
Subunit Structure	Heterodimer of a large membrane-associated beta subunit and a small pyruvoyl-containing alpha subunit.
Function	Catalyzes the formation of phosphatidylethanolamine (PtdEtn) from phosphatidylserine (PtdSer). Plays a central role in phospholipid metabolism and in the interorganelle trafficking of phosphatidylserine.

Note	Anchored to the mitochondrial inner membrane through its interaction with the integral membrane beta chain.
Product Categories/Family for anti-PISD antibody	Mitochondrion inner membrane; Single-pass membrane protein; Intermembrane side; Peripheral membrane protein; Primary
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PISD antibody	ELISA (EIA)(peptide)
Application Notes for anti-PISD antibody	ELISA(peptide): 1:20000-1:40000
Related Product Information for anti-PISD antibody	MBS9631324 is an antibody targeting PISD. Also known as PISD Antibody. Reactive in Human, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-PISD 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 PISD. It may not necessarily be applicable to this product.

NCBI GI #	311033492
NCBI GeneID	23761
NCBI Accession #	Q9UG56.4
UniProt Primary Accession #	Q9UG56
UniProt Secondary Accession #	O43207; O95535; Q6IC28; Q96GQ2; Q9UGA9; B1AKM7
UniProt Related Accession #	Q9UG56
NCBI Official Full Name	Phosphatidylserine decarboxylase proenzyme
NCBI Official Synonym Full Names	phosphatidylserine decarboxylase
NCBI Official Symbol	PISD
NCBI Official Synonym Symbols	PSD; PSDC; PSSC; DJ858B16; dJ858B16.2
UniProt Protein Name	Phosphatidylserine decarboxylase proenzyme
UniProt Gene Name	PISD
UniProt Entry Name	PISD_HUMAN
NCBI Protein Information	phosphatidylserine decarboxylase proenzyme
NCBI Summary for PISD	Phosphatidylserine decarboxylases (PSDs; EC 4.1.1.65) catalyze the formation of phosphatidylethanolamine (PE) by decarboxylation of phosphatidylserine (PS). Type I PSDs, such as PISD, are targeted to the inner mitochondrial membrane by an N-terminal targeting sequence. PISD also contains a conserved LGST motif that functions as an autocatalytic cleavage site where the proenzyme is split into mature alpha and beta subunits (Schuiki and Daum, 2009 [PubMed 19165886]).[supplied by OMIM, Jul 2010]

UniProt Comments for PISD	PISD: Belongs to the phosphatidylserine decarboxylase family. Heterodimer. 2 isoforms of the human protein are produced by alternative splicing Protein type: Endoplasmic reticulum; Lipid Metabolism - glycerophospholipid; Lyase; EC 4.1.1.65 Chromosomal Location of Human Ortholog: 22q12.2 Cellular Component: mitochondrion; nucleus Molecular Function: phosphatidylserine decarboxylase activity Biological Process: phospholipid metabolic process; glycerophospholipid biosynthetic process; phosphatidylethanolamine biosynthetic process
Research Articles on PISD	**1.** Observational study of gene-disease association. (HuGE Navigator)
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