GAD65 Blocking Peptide

PRODUCT OVERVIEW

Product Name	GAD65, Blocking Peptide
Full Product Name	GAD65 Peptide
Product Gene Name	GAD65 blocking peptide
Product Synonym Names	65 kDa glutamic acid decarboxylase; DCE 2; GAD 2; GAD 65; Glutamate decarboxylase 2 (pancreas); Glutamate Decarboxylase 65; MGC161605; MGC161607 antibody
Form/Format	Antigenic Blocking Peptide
Concentration	Quantity: 250 ug; Volume: 100 ul (lot specific)
Preparation and Storage	-20• degree C for long term storage
Antibody/Peptide Pairs	GAD65 peptide (MBS543715) is used for blocking the activity of GAD65 antibody (MBS540739)
Antibody/Peptide Pairs	GAD65 peptide (MBS543715) is used for blocking the activity of GAD65 antibody (MBS541664)
Antibody/Peptide Pairs	GAD65 peptide (MBS543715) is used for blocking the activity of GAD65 antibody (MBS541665)
Molecular Weight	65,411 Da
OMIM	138275
Immunogen	Synthetic peptide corresponding to unique amino acid sequence on human GAD65 protein.
Molecular Function	Decarboxylase, Lyase, glutamate binding
Structure	Homodimer
Subcellular Location	Cytoplasm, Cell junction, Lipid-anchor, Golgi apparatus membrane
Applications Tested/Suitable for GAD65 blocking peptide	Immunodepletion, Immunocompetition
Application Notes for GAD65 blocking peptide	Western Blot: 1:500
Related Product Information for GAD65 blocking peptide	Antigenic Blocking Peptide Glutamate Decarboxylase 65 Antibody Its function is to catalyze the production of GABA.
Other Notes	Small volumes of GAD65 blocking peptide 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.
Searchable Terms for GAD65 purchase	MBS543715 is a blocking peptide targeting GAD65. Also known as GAD65 Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GAD65. It may not necessarily be applicable to this product.

NCBI GI #	1352216
NCBI GeneID	2572
NCBI Accession #	Q05329.1
UniProt Primary Accession #	Q05329

UniProt Secondary Accession #	Q9UD87
UniProt Related Accession #	Q05329
NCBI Official Full Name	Glutamate decarboxylase 2
NCBI Official Synonym Full Names	glutamate decarboxylase 2
NCBI Official Symbol	GAD2
NCBI Official Synonym Symbols	GAD65
UniProt Protein Name	Glutamate decarboxylase 2
UniProt Synonym Protein Names	65 kDa glutamic acid decarboxylase; GAD-65; Glutamate decarboxylase 65 kDa isoform
UniProt Gene Name	GAD2
UniProt Synonym Gene Names	GAD65; GAD-65
UniProt Entry Name	DCE2_HUMAN
NCBI Protein Information	glutamate decarboxylase 2
NCBI Summary for GAD65	This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. A pathogenic role for this enzyme has been identified in the human pancreas since it has been identified as an autoantibody and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Alternative splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Oct 2008]
UniProt Comments for GAD65	GAD2: Catalyzes the production of GABA. Homodimer. Belongs to the group II decarboxylase family. Protein type: Other Amino Acids Metabolism - taurine and hypotaurine; Lyase; Other Amino Acids Metabolism - beta-alanine; Carbohydrate Metabolism - butanoate; Amino Acid Metabolism - alanine, aspartate and glutamate; EC 4.1.1.15 Chromosomal Location of Human Ortholog: 10p11.23 Cellular Component: axon; cell junction; cytosol; Golgi membrane; perinuclear region of cytoplasm; plasma membrane; presynaptic membrane; synaptic vesicle membrane Molecular Function: glutamate binding; glutamate decarboxylase activity; protein binding; protein heterodimerization activity; pyridoxal phosphate binding Biological Process: glutamate decarboxylation to succinate; neurotransmitter biosynthetic process; neurotransmitter secretion; response to drug; synaptic transmission
Research Articles on GAD65	**1.** we investigated the relationship between serum glutamic acid decarboxylase (GAD) autoantibody (Ab) levels and single nucleotide polymorphisms (SNPs) of the glutamic acid de-carboxylase 2 (GAD2) 5'-untranslated region
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