MBP ELISA Kit for Porcine

PRODUCT OVERVIEW

Product Name	MBP, ELISA Kit
Full Product Name	Porcine MBP (Myelin Basic Protein) ELISA Kit
Product Gene Name	MBP elisa kit
Species Reactivity	Porcine
Assay Type	Sandwich
Samples	Serum, Plasma, Biological Fluids
Detection Range	0.313-20ng/mL
Sensitivity	Min: 0.188ng/mL; Max: 20ng/mL
Specificity	This kit recognizes natural and recombinant Porcine MBP. No significant cross-reactivity or interference between Porcine MBP and analogues was observed.
Preparation and Storage	Store at 4 degree C.
Molecular Weight	17,343 Da
OMIM	159430
3D Structure	ModBase 3D Structure for P02686
Intended Uses	This ELISA kit applies to the in vitro quantitative determination of Porcine MBP concentrations in serum, plasma and other biological fluids.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for MBP elisa kit	**Principle of the assay:** This ELISA kit uses Sandwich-ELISA as the method. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to MBP. Standards or samples are added to the appropriate micro ELISA plate wells and combined with the specific antibody. Then a biotinylated detection antibody specific for MBP and Avidin-Horseradish Peroxidase (HRP) conjugate is added to each micro plate well successively and incubated. Free components are washed away. The substrate solution is added to each well. Only those wells that contain MBP, biotinylated detection antibody and Avidin-HRP conjugate will appear blue in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color turns yellow. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The OD value is proportional to the concentration of MBP. You can calculate the concentration of MBP in the samples by comparing the OD of the samples to the standard curve.
Other Notes	Small volumes of MBP elisa kit 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 MBP purchase	MBS2508303 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the MBP, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing MBP. The ELISA analytical biochemical technique of the MBS2508303 kit is based on MBP antibody-MBP antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect MBP antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, MBP. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

ADDITIONAL DETAILS

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

NCBI GI #	49456793
NCBI GeneID	4155
NCBI Accession #	CAG46717.1
UniProt Primary Accession #	P02686
UniProt Secondary Accession #	Q15337; Q15338; Q15339; Q15340; A4FU54; A6NI84; A8MY86; A8MYL4; B3KY66; B7ZKS2; B7ZKS4
UniProt Related Accession #	P02686
NCBI Official Full Name	MBP, partial
NCBI Official Synonym Full Names	myelin basic protein
NCBI Official Symbol	MBP
UniProt Protein Name	Myelin basic protein
UniProt Synonym Protein Names	Myelin A1 protein; Myelin membrane encephalitogenic protein
Protein Family	Myelin basic protein
UniProt Gene Name	MBP
UniProt Synonym Gene Names	MBP
UniProt Entry Name	MBP_HUMAN
NCBI Protein Information	Golli-MBP; myelin basic protein; myelin A1 protein; myelin membrane encephalitogenic protein
NCBI Summary for MBP	The protein encoded by the classic MBP gene is a major constituent of the myelin sheath of oligodendrocytes and Schwann cells in the nervous system. However, MBP-related transcripts are also present in the bone marrow and the immune system. These mRNAs arise from the long MBP gene (otherwise called "Golli-MBP") that contains 3 additional exons located upstream of the classic MBP exons. Alternative splicing from the Golli and the MBP transcription start sites gives rise to 2 sets of MBP-related transcripts and gene products. The Golli mRNAs contain 3 exons unique to Golli-MBP, spliced in-frame to 1 or more MBP exons. They encode hybrid proteins that have N-terminal Golli aa sequence linked to MBP aa sequence. The second family of transcripts contain only MBP exons and produce the well characterized myelin basic proteins. This complex gene structure is conserved among species suggesting that the MBP transcription unit is an integral part of the Golli transcription unit and that this arrangement is important for the function and/or regulation of these genes. [provided by RefSeq, Jul 2008]
UniProt Comments for MBP	MBP: The classic group of MBP isoforms (isoform 4-isoform 14) are with PLP the most abundant protein components of the myelin membrane in the CNS. They have a role in both its formation and stabilization. The smaller isoforms might have an important role in remyelination of denuded axons in multiple sclerosis. The non-classic group of MBP isoforms (isoform 1-isoform 3/Golli-MBPs) may preferentially have a role in the early developing brain long before myelination, maybe as components of transcriptional complexes, and may also be involved in signaling pathways in T- cells and neural cells. Differential splicing events combined with optional post-translational modifications give a wide spectrum of isomers, with each of them potentially having a specialized function. Induces T-cell proliferation. Homodimer. Isoform 3 exists as a homodimer. MBP isoforms are found in both the central and the peripheral nervous system, whereas Golli-MBP isoforms are expressed in fetal thymus, spleen and spinal cord, as well as in cell lines derived from the immune system. Belongs to the myelin basic protein family. 6 isoforms of the human protein are produced by alternative splicing. Protein type: Cytoskeletal Chromosomal Location of Human Ortholog: 18q23 Cellular Component: internode region of axon; compact myelin; cell soma; plasma membrane; nucleus Molecular Function: protein binding; protease binding; structural constituent of myelin sheath Biological Process: response to mercury ion; myelination; synaptic transmission; substantia nigra development; central nervous system development; response to toxin; immune response; negative regulation of axonogenesis; axon ensheathment; response to progesterone stimulus; aging

Research Articles on MBP	**1.** data reveal the first case of a pathophysiologically important autoantigen as a ubiquitin-independent substrate of the 26S proteasome.
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