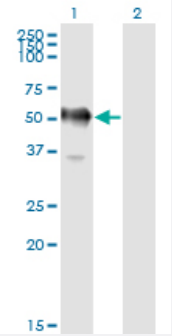
GAPDS monoclonal antibody (M01), clone 2E3-2E10

Catalog # H00026330-M01 Size 100 ug

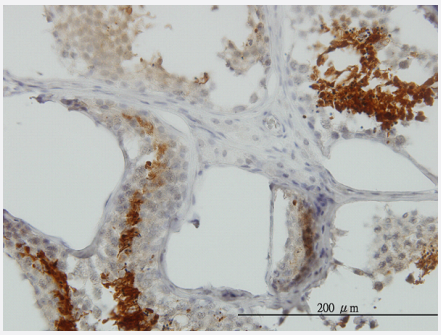
Applications



Western Blot (Transfected lysate)

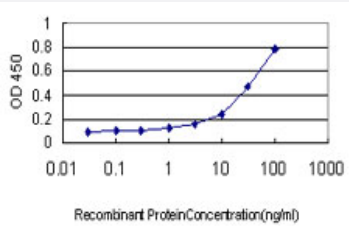
Western Blot analysis of GAPDHS expression in transfected 293T cell line by GAPDS monoclonal antibody (M01), clone 2E3-2E10.

Lane 1: GAPDHS transfected lysate(44.5 KDa).
Lane 2: Non-transfected lysate.



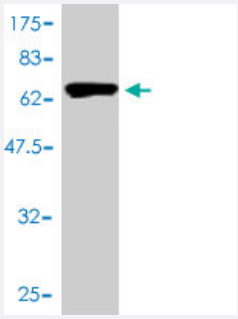
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to GAPDHS on formalin-fixed paraffin-embedded human testis. [antibody concentration 1.5 ug/ml]



Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged GAPDHS is approximately 1ng/ml as a capture antibody.



Western Blot detection against Immunogen (70.62 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a full length recombinant GAPDS.
Immunogen	GAPDS (AAH36373, 1 a.a. ~ 408 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MSKRDIVLTNVTVVQLLRQPCPVTRAPPPPEPKAEVEPQPQPEPTPVREEIKPPPPPLPPHPATPPPKMVSVARELTVGINGFGRIGRLVLRACMEKGVKVVAVNDPFIDPEYMVYMFKYDSTHGRYKGSVEFRNGQLVVDNHEISVYQCKEPKQIPWRAVGSPYVVESTGVYLSIQAASDHISAGAQRVVISAPSPDAPMFVMGVNENDYNPGSMNIVSNASCTTNCLAPLAKVIHERFGIVEGLMTTVHSYTATQKTVDGPSRKAWRDGRGAHQNIIPASTGAAKAVTKVIPELKGKLTGMAFRVPTPDVSVVDLTCRLAQPAPYSAIKEAVKAAAKGPMAGILAYTEDEVVSTDFLGDTHSSIFDAKAGIALNDNFVKLISWYDNEYGYSHRVVDLLRYMFSRDK
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (76); Rat (78)
Isotype	IgG1 kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (70.62 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

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  Lane 2: Non-transfected lysate.

  Protocol Download

- Western Blot (Recombinant protein)

  Protocol Download

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  Immunoperoxidase of monoclonal antibody to GAPDHS on formalin-fixed paraffin-embedded human testis. [antibody concentration 1.5 ug/ml]

  Protocol Download

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  Detection limit for recombinant GST tagged GAPDHS is approximately 1ng/ml as a capture antibody.

  Protocol Download

- ELISA

Gene Info — GAPDHS

Entrez GeneID	26330
GeneBank Accession#	BC036373
Protein Accession#	AAH36373
Gene Name	GAPDHS
Gene Alias	GAPD2, GAPDH-2, GAPDS, HSD-35
Gene Description	glyceraldehyde-3-phosphate dehydrogenase, spermatogenic
Omim ID	609169
Gene Ontology	Hyperlink

Gene Summary	This gene encodes a protein belonging to the glyceraldehyde-3-phosphate dehydrogenase family of enzymes that play an important role in carbohydrate metabolism. Like its somatic cell counterp art, this sperm-specific enzyme functions in a nicotinamide adenine dinucleotide-dependent mann er to remove hydrogen and add phosphate to glyceraldehyde 3-phosphate to form 1,3-diphospho glycerate. During spermiogenesis, this enzyme may play an important role in regulating the switch between different energy-producing pathways, and it is required for sperm motility and male fertilit y. [provided by RefSeq
Other Designations	glyceraldehyde-3-phosphate dehydrogenase, testis-specific|spermatogenic cell-specific glyceral dehyde 3-phosphate dehydrogenase 2

Publication Reference

- Down-Regulation of miR-96 by Bone Morphogenetic Protein Signaling is Critical for Vascular Smooth Muscle Cell Phenotype Modulation.

  Kim S, Hata A, Kang H.

  Journal of Cellular Biochemistry 2014 May; 115(5):889.

  Application: IHC, WB, Human, Gastric tissue, MKN28, MKN45, AGS, N87, SNU 1, SNU 16, KATO cells

- Inhibition of microRNA-302 (miR-302) by bone morphogenetic protein 4 (BMP4) facilitates the BMP signaling pathway.

  Kang H, Louie J, Weisman A, Sheu-Gruttadauria J, Davis-Dusenbery BN, Lagna G, Hata A.

  The Journal of Biological Chemistry 2012 Nov; 287(46):38656.

  Application: WB-Ce, WB-Tr, Human, PASMCs

- Isolation of antibodies against different protein conformations using immunoaffinity chromatography.

  Kuravsky ML, Schmalhausen EV, Pozdnyakova NV, Muronetz VI.

  Analytical Biochemistry 2012 Jul; 426(1):47.

  Application: WB, Human, Human sperm lysate

- Bone morphogenetic protein 4 promotes vascular smooth muscle contractility by activating microRNA-21 (miR-21), which down-regulates expression of family of dedicator of cytokinesis (DOCK) proteins.

  Kang H, Davis-Dusenbery BN, Nguyen PH, Lal A, Lieberman J, Van Aelst L, Lagna G, Hata A.

  The Journal of Biological Chemistry 2012 Feb; 287(6):3976.

  Application: WB-Tr, Human, Human primary pulmonary artery smooth muscle cells

- Down-regulation of KLF4 by MIR-143/145 is critical for modulation of vascular smooth muscle cell phenotype by TGF-{beta} and BMP.

  Davis-Dusenbery BN, Chan MC, Reno KE, Weisman AS, Layne MD, Lagna G, Hata A.

  The Journal of Biological Chemistry 2011 Aug; 286(32):28097.

  Application: WB-Ce, WB-Tr, Human, PASMCs

- The amiloride derivative phenamil attenuates pulmonary vascular remodeling by activating NFAT and the BMP signaling pathway.

  Chan MC, Weisman AS, Kang H, Nguyen PH, Hickman T, Mecker SV, Hill NS, Lagna G, Hata A.

  Molecular and Cellular Biology 2011 Feb; 31(3):517.

  Application: WB, Human, PASMCs

- Recombinant human sperm-specific glyceraldehyde-3-phosphate dehydrogenase: Structural basis for enhanced stability.

  Elkina YL, Kuravsky ML, El'darov MA, Stogov SV, Muronetz VI, Schmalhausen EV.

  Biochimica et Biophysica Acta 2010 Dec; 1804(12):2207.

  Application: WB, E. coli, Recombinant protein, Rosetta 2(DE3)/pET21/dGAPDS cells

- Smad proteins bind a conserved RNA sequence to promote microRNA maturation by Drosha.

  Davis BN, Hilyard AC, Nguyen PH, Lagna G, Hata A.

  Molecular Cell 2010 Aug; 39(3):373.

  Application: WB-Tr, Human, Human primary pulmonary smooth muscle cells

- Molecular basis for antagonism between PDGF and the TGFbeta family of signalling pathways by control of miR-24 expression.

  Chan MC, Hilyard AC, Wu C, Davis BN, Hill NS, Lal A, Lieberman J, Lagna G, Hata A.

  The EMBO Journal 2010 Feb; 29(3):559.

  Application: WB-Ce, WB-Tr, Human, Human primary pulmonary smooth-muscle cells

- Induction of microrna-221 by platelet-derived growth factor signaling is critical for modulation of vascular smooth muscle phenotype.

  Davis BN, Hilyard AC, Nguyen PN, Lagna G, Hata A.

  The Journal of Biological Chemistry 2008 Dec; 284(6):3728.

  Application: WB, Human, Human primary pulmonary artery smooth muscle cells

- SMAD proteins control DROSHA-mediated microRNA maturation.

  Davis BN, Hilyard AC, Lagna G, Hata A.

  Nature 2008 Jun; 454(7200):56.

  Application: WB-Tr, Human, 10T1/2 cells, COS-7, Human primary pulmonary artery smooth muscle cells

- Investigation of glyceraldehyde-3-phosphate dehydrogenase from human sperms.

  Shchutskaya YY, Elkina YL, Kuravsky ML, Bragina EE, Schmalhausen EV.

  Biochemistry. Biokhimiia 2008 Feb; 73(2):185.

  Application: WB-Ti, Human, Human sperm

Disease

- Alzheimer disease
- Genetic Predisposition to Disease