GAPDH antibody

Catalog Number: ATGA0592

PRODUCT INFORMATION

Catalog number
ATGA0592

Clone No.
AT4E8

Product type
Monoclonal antibody

UnitProt No.
P46406

NCBI Accession No.
NP_001075722.1

Alternative Names
Glyceraldehyde-3-phosphate dehydrogenase isoform 1, Peptidyl-cysteine S-nitrosylase GAPDH, GAPD, G3PD

Additional Information
ATGA0394 has been replaced with a catalog number ATGA0592.

PRODUCT SPECIFICATION

Antibody Host
Mouse

Concentration
0.2mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen
GAPDH from rabbit muscle

Isotype
IgG2b kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA, WB, ICC/IF

Usage
The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

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Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

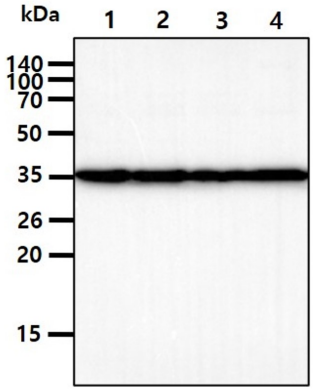
Multiple roles for glyceraldehyde-3-phosphate dehydrogenase (GAPDH) have been recently appreciated. GAPDH is found in the particulate fractions, such as the nucleus, the mitochondria, and the small vesicular fractions. GAPDH gene expression is specifically increased during programmed neuronal cell death. When cells are exposed to various stressors, dynamic subcellular re-distribution of GAPDH occurs. GAPDH is also involved in various diseases, especially neurodegenerative disorders and cancers. As a membrane protein, GAPDH functions in endocytosis in the cytoplasm, it is involved in the translational control of gene expression in the nucleus, it functions in nuclear tRNA export, in DNA replication, and in DNA repair.

General References

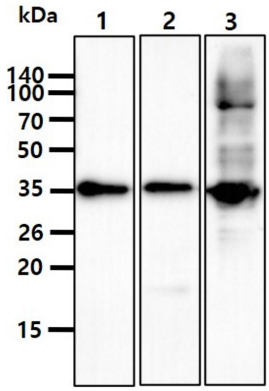
Chuang DM., et al, (2005) Annu Rev Pharmacol Toxicol. 45:269-90.
Mazzola JL., et al, (2002) Neurotoxicology. 23(4-5):603-9.
Sirover MA. (1997) J Cell Biochem. 66(2):133-40.

DATA

Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-GAPDH antibody (1:200). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: HepG2 cell lysate
Lane 2.: MCF7 cell lysate
Lane 3.: Jurkat cell lysate
Lane 4.: A549 cell lysate



The tissue lysates (20ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-GAPDH antibody (1:200). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Mouse Brain tissue lysate
Lane 2.: Mouse Eye tissue lysate
Lane 3.: Mouse Muscle tissue lysate

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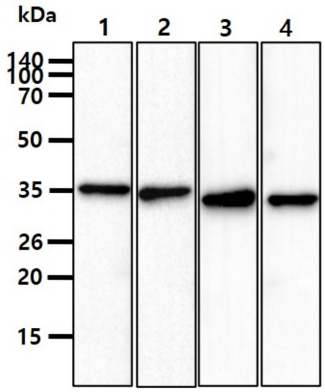
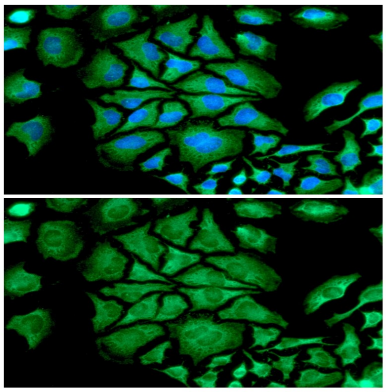


The 293T cell lysate (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human GAPDH. Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Anti-GAPDH monoclonal antibody (1:20,000)
Lane 2.: Anti-GAPDH monoclonal antibody (1:10,000)
Lane 3.: Anti-GAPDH monoclonal antibody (1:2,000)
Lane 4.: Anti-GAPDH monoclonal antibody (1:200)

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of GAPDH in HeLa cells. The cell was stained with ATGA0592 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).