

## **GAPDH Mouse Monoclonal Antibody**

Background:

Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) is well known as one of the key enzymes involved in glycolysis. It catalyzes an important energy-yielding step in carbohydrate metabolism, the reversible oxidative phosphorylation glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD). The enzyme exists as a tetramer of identical chains. Besides its functioning as a glycolytic enzyme in cytoplasm, recent evidence suggest that mammalian GAPDH is also involved in a great number of intracellular proceses such as phosphotransferase activity, nuclear RNA export, DNA replication, and DNA repair. During the last decade a lot of findings appeared concerning the role of GAPDH in different pathologies including prostate cancer progression, programmed neuronal cell death, agerelated neuronal diseases, such as Alzheimer's and Huntington's disease.

Catalog Number: E10-20035

**Amount:** 100μg/100μl

Clone Number: 1A10

**Species:** Mouse IgG1 **MW:** 37kDa

Aliases: G3PD; GAPD; MGC88685

Entrez Gene: 2597

Immunogen: Purified recombinant fragment of human GAPDH expressed in E. Coli.

**Storage:** Store at  $4^{\circ}$ C, for long term storage, store at  $-20^{\circ}$ C

**Formulation:** Ascitic fluid containing 0.03% sodium azide.

Species Reactivities: Human

Tested Applications: WB, IHC,IF, ELISA. Not yet tested in other applications. Determining optimal working

dilutions by titration test.

**Application notes:** WB.1/500 - 1/2000, IHC.1/200 - 1/1000, IF.1/200 - 1/1000, ELISA. Propose dilution 1/10000.

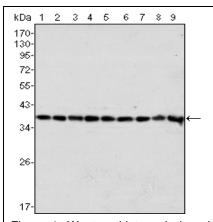


Figure 1. Western blot analysis using GAPDH mouse mAb against Hela (1), A549 (2), A431 (3), MCF-7 (4), K562 (5), Jurkat (6), HL60 (7), SKN-SH (8) and SKBR-3 (9) cell lysate.

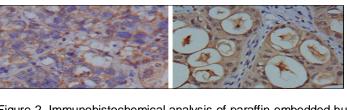


Figure 2. Immunohistochemical analysis of paraffin-embedded human breast carcinoma (left) and kidney carcinoma (right), showing cytoplasmic localization using GAPDH mouse mAb with DAB staining.

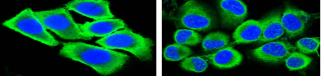


Figure 3. Confocal immunofluorescence analysis of methanol-fixed HepG2 (left) and Hela (right) cells using GAPDH mouse mAb (green), showing cytoplasmic localization. Blue. DRAQ5 fluorescent DNA dye.