

GAPDH Monoclonal Antibody

Catalog No	AC002	Category	Loading control Antibodies
Applications	WB	Observed MW	36kDa
Cross-Reactivity	Human,Mouse,Rat	Calculated MW	31kDa/36kDa

Immunogen Information

Immunogen	Recombinant protein of human GAPDH
Gene ID	2597
Swiss Prot	P04406
Synonyms	G3PD;GAPD;HEL-S-162eP

Product information

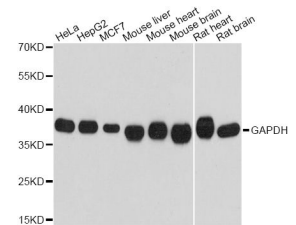
Source	Mouse
Isotype	IgG
Purity	Affinity purification
Storage	Store at -20°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Background

This gene encodes a member of the glyceraldehyde-3-phosphate dehydrogenase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. The product of this gene catalyzes an important energy-yielding step in carbohydrate metabolism, the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD). The encoded protein has additionally been identified to have uracil DNA glycosylase activity in the nucleus. Also, this protein contains a peptide that has antimicrobial activity against *E. coli*, *P. aeruginosa*, and *C. albicans*. Studies of a similar protein in mouse have assigned a variety of additional functions including nitrosylation of nuclear proteins, the regulation of mRNA stability, and acting as a transferrin receptor on the cell surface of macrophage. Many pseudogenes similar to this locus are present in the human genome. Alternative splicing results in multiple transcript variants.

Recommended Dilutions

WB 1:5000 - 1:20000



Western blot analysis of extracts of various cell lines, using GAPDH antibody (AC002) at 1:10000 dilution. Secondary antibody: HRP Goat Anti-Mouse IgG (H+L) (AS003) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 1s.