

## GAPDH Polyclonal Antibody

<b>Catalog No.</b>	AC001	<b>Category</b>	Loading control Antibodies
<b>Applications</b>	WB, IHC, IF	<b>Observed MW</b>	36kDa
<b>Cross-reactivity</b>	Human, Mouse, Rat	<b>Calculated MW</b>	31kDa/36kDa

### Immunogen Information

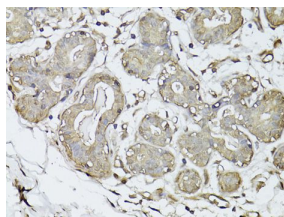
<b>Immunogen</b>	Recombinant fusion protein containing a sequence corresponding to amino acids 1-335 of human GAPDH (NP_002037.2).
<b>Gene ID</b>	2597
<b>Swiss prot</b>	P04406
<b>Synonyms</b>	G3PD;GAPD;HEL-S-162eP

### Product information

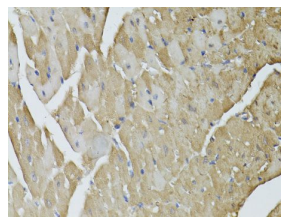
<b>Source</b>	Rabbit
<b>Isotype</b>	IgG
<b>Purification method</b>	Affinity purification
<b>Storage</b>	Store at -20°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

### 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.



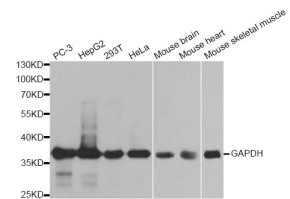
Immunohistochemistry of paraffin-embedded human breast cancer using GAPDH antibody (AC001) at dilution of 1:100 (40x lens).



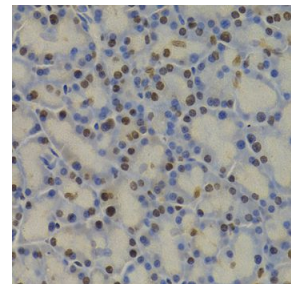
Immunohistochemistry of paraffin-embedded mouse heart using GAPDH antibody (AC001) at dilution of 1:100 (40x lens).

### Recommended Dilutions

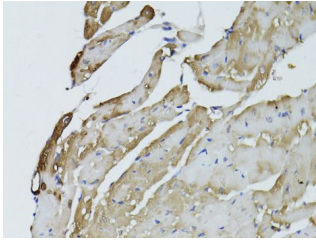
WB	1:1000 - 1:10000
IHC	1:50 - 1:100
IF	1:20 - 1:50



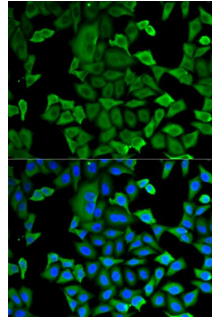
Western blot analysis of extracts of various cell lines, using GAPDH antibody (AC001) at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST.



Immunohistochemistry of paraffin-embedded rat pancreas using GAPDH antibody (AC001) at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded mouse heart using GAPDH antibody (AC001) at dilution of 1:100 (40x lens).



Immunofluorescence analysis of MCF-7 cells using GAPDH antibody (AC001).  
Blue: DAPI for nuclear staining.