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Anti-GAPDH: Mouse Glyceraldehyde 3-Phosphate Dehydrogenase, G3PDH Antibody

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Product Sheet CP10112

Description

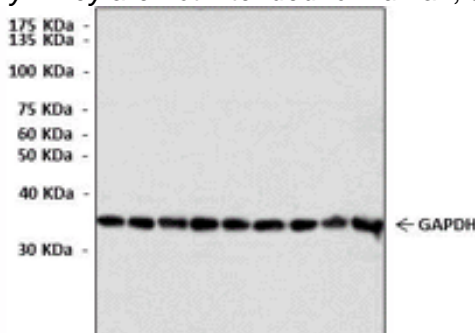
BACKGROUND GAPDH (Glyceraldehyde 3-phosphate dehydrogenase, G3PDH) is an enzyme that catalyzes the reversible Oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD), the sixth step of glycolysis and thus serves to break down glucose for energy and carbon molecules.¹ In addition to this long established metabolic function, GAPDH has recently been implicated in several non-metabolic processes, including transcription activation, initiation of apoptosis, and ER to Golgi vesicle shuttling.² The enzyme exists as a tetramer of identical chains.

Because the GAPDH gene is often stably and constitutively expressed at high levels in most tissues and cells, it is considered a housekeeping gene. For this reason, GAPDH is commonly used by biological researchers as a loading control for western blot and as a control for RT-PCR. However, many researchers report different regulation of GAPDH under specific conditions.³ Therefore, the use of GAPDH as loading control has to be controlled carefully.

REFERENCES

1. Voet, D. & Voet, J. G.: Biochemistry, Third Edition. J. Wiley & Sons, Hoboken, NJ, 2004
2. Tarze, A. et al: Oncogene 26:2606-20, 2007
3. Graven, K.K. et al: J. Biol. Chem. 269:24446-53, 1994

Products are for research use only. They are not intended for human, animal, or diagnostic applications.



[1]
(Click to Enlarge) **Top:** Western Blot detection of GAPDH proteins in various cell lysates using GAPDH Antibody. **Middle:** This antibody stains paraffin-embedded human breast cancer tissue in immunohistochemical analysis. **Bottom:** It also stains HepG2 cells in confocal immunofluorescent testing (GAPDH Antibody: Green; DRAQ5 DNA dye: Blue).

Details

Cat.No.:	CP10112	
Antigen:	Raised against purified recombinant human GAPDH fragments expressed in <i>E. coli</i> .	
Isotype:	Mouse IgG1	
Species & predicted species cross-reactivity ():	Human, Mouse, Rat	
Applications & Suggested starting dilutions:*	WB	1:1000
	ELISA	1:10000
	IHC	1:200
	ICC	1:200
Predicted Molecular Weight of protein:	35 kDa	
Specificity/Sensitivity:	Detects endogenous GAPDH proteins without cross-reactivity with other related proteins	
Storage:	Store at -20°C, 4°C for frequent use. Avoid repeated freeze-thaw cycles.	

*Optimal working dilutions must be determined by end user.

Products

Resources/Documents

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