CELL APPLICATIONS, INC.

GAPDH Antibody

Cat. No. CA1338

Applications:	**WB, IHC**
Detected MW:	**35 kDa**
Species & Reactivity:	**Human, Mouse, Rat**
Isotype:	**Rabbit IgG**

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

TECHNICAL INFORMATION

Source:
GAPDH Antibody is a rabbit antibody raised against a short peptide from human GAPDH sequence.

Specificity and Sensitivity:
This antibody detects endogenous levels of GAPDH proteins without cross-reactivity with other related proteins.

Storage Buffer: PBS and 30% glycerol

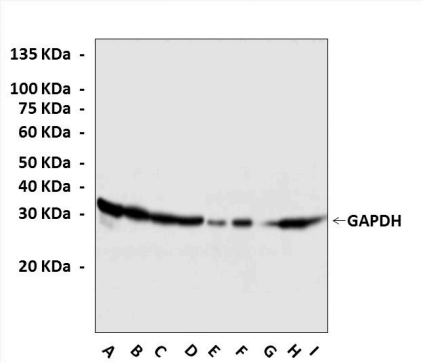
Storage:
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	1:50-200
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Western Blot detection of GAPDH proteins in rat heart tissue (A), rat brain tissue (B), rat live tissue (C), rat skeletal muscle tissue (D), MM453 whole cell (E), MM231 whole cell (F), smmc whole cell (G), HeLa whole cell (H), and HT1080 whole cell (I) lysates using GAPDH Antibody.