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Product datasheet for AP16445PU-N

GAPDH Goat Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	**Peptide ELISA:** 1/16000 (Detection Limit). **Western Blot:** 0.03-0.1 µg/ml. Approx 37kDa band observed in Human Liver, Testis and Tonsil, and in Mouse Liver and Rat Heart lysates, and in cell lysates of HeLa and NIH3T3 (calculated MW of 36.1kDa according to Human NP_002037.2, Mouse NP_032110.1, and Rat NP_058704.1). Primary incubation 1 hour at room temperature. **Immunofluorescence:** 5 µg/ml. Strong expression of the protein seen in the cytoplasm of HeLa cells. **Immunohistochemistry on Paraffin Sections:** 2 µg/ml. In paraffin embedded Liver shows textured cytoplasm staining in hepatocytes.
Reactivity:	Canine, Human, Mouse, Rat
Host:	Goat
Clonality:	Polyclonal
Immunogen:	Peptide with sequence from the internal region of the protein sequence according to NP_002037.2.
Specificity:	This antibody is specific to GAPDH (Internal). This antibody is expected to recognize both reported isoforms (NP_002037.2; NP_001243728.1). Reported variants represent identical protein: NP_001276674.1, NP_002037.2, NP_001276675.1. GAPDH is constitutively expressed in almost all tissues at high levels. It is therefore a useful marker when a Loading/Positive Control is required in Western blotting.
Formulation:	Tris saline, pH~7.3 State: Aff - Purified State: Liquid purified Ig fraction Stabilizer: 0.5% BSA Preservative: 0.02% Sodium Azide
Concentration:	lot specific
Purification:	Ammonium Sulphate Precipitation followed by antigen Affinity Chromatography using the immunizing peptide

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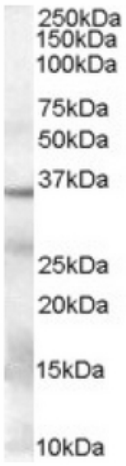
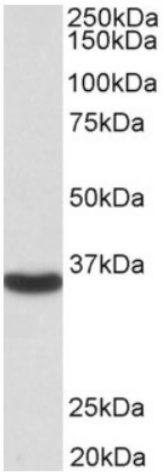
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	36.1 kDa
Gene Name:	glyceraldehyde-3-phosphate dehydrogenase
Database Link:	Entrez Gene 2597 Human P04406
Background:	Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) is a metabolic enzyme originally thought to be only involved in Glycolysis. GAPDH is constitutively expressed at high levels in almost all tissues and serves therefore as a useful marker for the measurement of equal loading in western blotting experiments. Because of its ubiquitous expression, GAPDH is often seen as a housekeeping gene. However in the last two decades, every year a new function for this enzyme has been revealed. Besides its central role as a cytoplasmic enzyme in Glycolysis, recent evidence suggests that mammalian GAPDH is also involved in a great number of intracellular processes such as DNA replication and repair, nuclear membrane fusion, endocytosis, nuclear translocation in apoptosis, microtubule bundling, vesicular secretory transport, maintenance of telomere structure, phosphotransferase activity and nuclear RNA export. We now know that GAPDH is not only in the cytoplasm, but it shuttles between the cytoplasm and the nucleus and membranes. A lot of reports demonstrate the role of GAPDH in different pathologies such as progression in prostate cancer and ovarian cancer (mRNA stability), programmed neuronal cell death, and agerelated neuronal diseases. For example the sub-cellular distribution of GAPDH is abnormal in patients with Alzheimer's disease.
Synonyms:	GAPD, CDABP0047

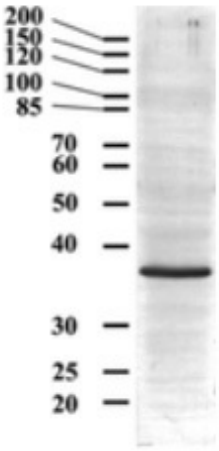
Product images:



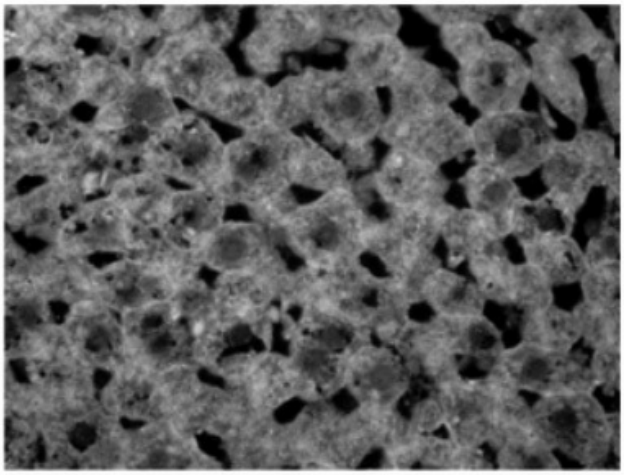
GAPDH antibody staining of Human Tonsil Lysate at 0.1 ug/ml (RIPA buffer, 35 ug total protein per lane). Primary incubated for 1 hour. Detected by western blot using Chemiluminescence.



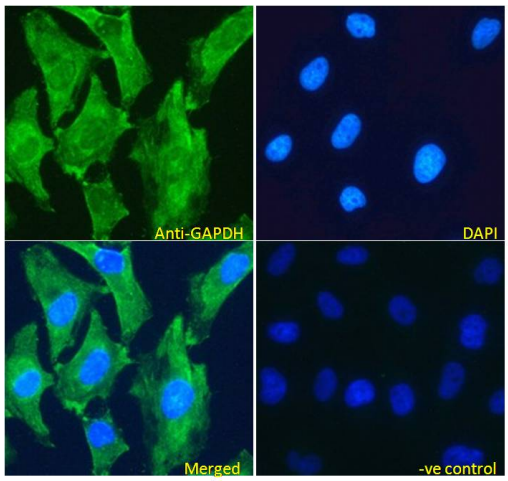
GAPDH antibody staining of Human Liver Lysate at 0.1 ug/ml (RIPA buffer, 35 ug total protein per lane). Primary incubated for 1 hour. Detected by western blot using Chemiluminescence.



GAPDH antibody staining of Rat Liver Lysate at 0.5 ug/ml (RIPA buffer, 35 ug total protein per lane). Primary incubation was overnight. Detected by alkaline phosphatase (NBT/BCIP). Data provided by Dr. I. Sabolic, Institute for Medical Research and Occupational Health, Zagreb, Croatia.



GAPDH antibody staining of PFA-perfused cryosection of Rat Liver at 20 ug/ml. Antigen retrieval with citrate buffer pH 3 by microwave for 20min, Cy3 detection. Data obtained by Dr. I. Sabolic, Institute for Medical Research and Occupational Health, Zagreb, Croatia.



Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (5ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showiug cytoplasmic and plasma membrane stainiug. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (4ug/ml).