**Basic Information**
- **Catalog Number:** 10494-1-AP
- **Size:** 150μl, Concentration: 600 μg/ml by Nanodrop and 333 μg/ml by Bradford method using BSA as the standard.
- **Source:** Rabbit
- **Isotype:** IgG
- **Immunogen Catalog Number:** AG0766
- **GenBank Accession Number:** BC004109
- **GeneID (NCBI):** 2597
- **Full Name:** glyceraldehyde-3-phosphate dehydrogenase
- **Calculated MW:** 36 kDa
- **Observed MW:** 36 kDa
- **Purification Method:** Antigen affinity purification
- **Recommended Dilutions:**
  - WB: 1:5000-1:40000
  - IP: 0.5-4.0 μg for IP and 1:1000-1:6000 for WB
  - IHC: 1:200-1:800
  - IF: 1:20-1:200
- **Positive Controls:**
  - WB: human placenta tissue, HEK-293 cells, HeLa cells, A549 cells, PC-13 cells, arabidopsis whole plant tissue, com whole plant tissue, rat brain tissue, Raji cells, HepG2 cells, K-562 cells, mouse heart tissue, mouse brain tissue, RAW 266.7 cells, C6 cells, mouse skin tissue
  - IP: A549 cells
  - IHC: human breast cancer tissue, human lung cancer tissue
  - IF: HepG2 cells, Hela cells

**Applications**
- **Tested Applications:** FC, IF, IHC, IP, WB, ELISA
- **Cited Applications:** CoIP, IF, IHC, IP, RIP, WB
- **Species Specificity:** human, mouse, rat, pig, arabidopsis, com, cabbage, rice
- **Cited Species:** Arabidopsis, Bovine, Caenorhabditis elegans, canine, chicken, hamster, human, leech, monkey, mouse
- **Note:** IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

**Background Information**
Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) catalyzes the phosphorylation of glyceraldehyde-3-phosphate during glycolysis. GAPDH participates in nuclear events including transcription, binding RNA, DNA replication, DNA repair and apoptosis. Being stably and constitutively expressed at high levels in most tissues and cells, GAPDH is considered a housekeeping protein. It is widely used as a control for RT-PCR and also loading control in electrophoresis and Western blotting. GAPDH is normally expressed in cellular cytoplasm or membrane, but can occasionally translocate to the nucleus after the addition of post-translational modifications such as S-nitrosylation. This antibody is raised against full length GAPDH of human origin. It can recognize the 36 kDa GAPDH protein in most cells/tissues. In addition, a band below 36 kDa can always be detected as the isoform or spliced product of GAPDH (PMID: 23885286, 23877755, 19368702). Please note that some physiological factors, such as hypoxia and diabetes, increase GAPDH expression in certain cell types.

**Notable Publications**

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**Storage**
- **Store at -20°C. Stable for one year after shipment.**
- **Storage Buffer:** PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
- **Aliquoting is unnecessary for -20°C storage**

For technical support and original validation data for this product please contact:
- T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
- E: proteintech@ptglab.com
- W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.
Various lysates were subjected to SDS PAGE followed by western blot with 10494-1-AP (GAPDH antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.

IP Result of anti-GAPDH (IP: 10494-1-AP, 3ug; Detection: 10494-1-AP 1:3000) with A549 cells lysate 3500ug.

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 10494-1-AP (GAPDH antibody) at dilution of 1:400 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 10494-1-AP (GAPDH antibody) at dilution of 1:400 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunofluorescent analysis of HepG2 cells, using GAPDH antibody 10494-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).

1X10^6 HEK-293 cells were stained with .2ug GAPDH antibody (10494-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-Goat anti-Rabbit IgG with dilution 1:100.