GAPDH Polyclonal antibody

Catalog Number: 10494-1-AP 2497 Publications

**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
- **GenelID (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

**Applications**

- **Tested Applications:** FC, IF, IHC, IP, WB, ELISA
- **Cited Applications:** CoIP, IF, IHC, IP, RIP, WB
- **Species Specificity:** human, mouse, rat, pig, arabidopsis, corn, cabbage, rice
- **Cited Species:** Arabidopsis, Bovine, Caenorhabditis elegans, canine, chicken, hamster, human, leech, monkey, mouse

**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, RNA transportation, 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-transitional 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**

<table>
<thead>
<tr>
<th>Author</th>
<th>Pubmed ID</th>
<th>Journal</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jian Wen</td>
<td>32996777</td>
<td>Cancer Biother Radiopharm</td>
<td>WB</td>
</tr>
<tr>
<td>Ya-Bing Tian</td>
<td>33062456</td>
<td>PeerJ</td>
<td>WB</td>
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<tr>
<td>Huanru Wang</td>
<td>31575039</td>
<td>Int J Mol Sci</td>
<td>WB</td>
</tr>
</tbody>
</table>

**Storage**

- **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) 655-8498 (outside USA)
E: proteintechn@ptglab.com
W: ptglab.com

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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).

1X10⁶ 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.