

## Peptide-affinity Purified Polyclonal Antibody to GAPDH - Loading Control



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## Peptide-affinity Purified Polyclonal Antibody to GAPDH - Loading Control

**Catalog No :** IMG-3073  
**Formulation :** 0.1 mg of purified antibody. 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.  
**Isotype :** Goat Ig  
**Clone :** N/A  
**Purification :** Antigen Affinity Chromatography  
**Species React :** Cow, Dog, Human, Monkey, Mouse, Pig, Rat  
**Predicted React :** Drosophila, Xenopus  
**Host :** Goat

**Application**  
Western blot analysis: 0.01-0.1 ug/ml  
ELISA: >1:16000  
IHC (paraffin): 0.3µg/ml  
**Storage**  
Store at -20°C.

**Recommended Positive Control:** Brain, heart, kidney, liver, lung, stomach, spleen, ovary, testis, and 293.  
Most cell lines and tissues will be positive for GAPDH.

### Background

Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH, G3PDH or GPDH) is one of the key enzymes involved in glycolysis; it catalyzes the reversible oxidative phosphorylation of glyceraldehydes-3-phosphate. The GAPDH gene is constitutively and stably expressed at high levels in almost all tissues and cells, and as such is considered to be a housekeeping gene. Housekeeping proteins like GAPDH are useful as loading controls for western blots and protein normalization.

### Antigen

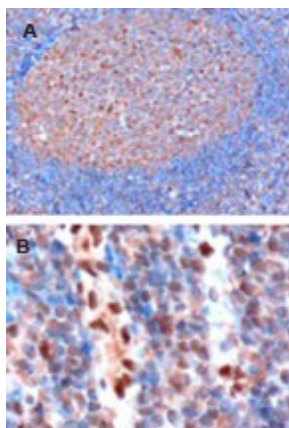
Peptide with sequence HQVVSSDFNSDT, from C Terminus of the protein sequence according to NP\_002037.

### Application Notes

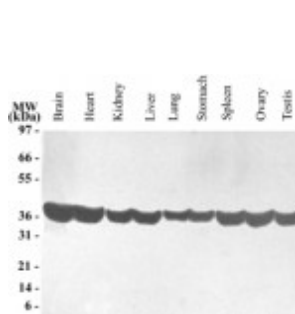
On Western blots, GAPDH is detected as a band of approximately 36-40 kDa. GAPDH antibodies are widely used as loading controls for quantitative Western blotting, including normalizing Western blot results to GAPDH. GAPDH is highly conserved across species, and antibodies to GAPDH typically have broad species reactivity.

### Genebank Info (Protein)

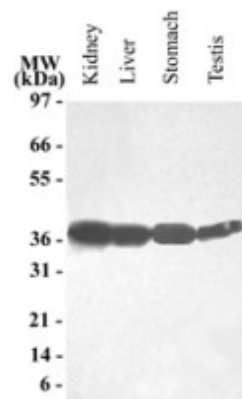
NP\_002037



IHC staining of paraffin embedded Human Tonsil using IMG-3073 at 0.3µg/ml. Microwaved antigen retrieval with Tris/EDTA buffer pH9, HRP-staining. A) Staining of germinal centre cells. B) Staining of endothelial cells.



Application of the GAPDH antibody as a protein loading control in Western blots. Total proteins from various mouse tissue lysates were normalized using the GAPDH polyclonal antibody (IMG-3073 at 0.05 ug/ml). Mouse tissue lysates, Cat nos: Brain (40101), Heart(40102), Kidney (40104), Liver (40105), Lung (40106), Stomach (40110), Spleen (40109), Ovary (40108), and Testis (40111).



Application of the GAPDH antibody as a protein loading control in Western blots. Total proteins from various human tissue lysates were normalized using the GAPDH polyclonal antibody (IMG-3073 at 0.05 ug/ml). Human tissue lysates, Cat nos: Kidney (40144), Liver (40145), Stomach (40152), and Testis (40150).

### Related Products

1. 40141 [Human Brain Tissue Lysate ]
2. 40142 [Human Heart Tissue lysate]
3. 40144 [Human Kidney Tissue lysate]
4. 40146 [Human Lung Tissue lysate]
5. 40152 [Human Stomach Tissue lysate]
6. 40149 [Human Spleen Tissue lysate]

## Peptide-affinity Purified Polyclonal Antibody to GAPDH - Loading Control

- 7. 40151 [Human Ovary Tissue lysate]
- 8. 40150 [Human Testis Tissue lysate]
- 9. 40164 [HEK293 cell line lysate (embryonic kidney)]

### Reference

- 1. Burke JR, Enghild JJ, Martin ME, Jou YS, Myers RM, Roses AD, Vance JM, Strittmatter WJ. Huntingtin and DRPLA proteins selectively interact with the enzyme GAPDH. *Nat Med.* 1996 Mar;2(3):347-50. PMID: 8612237
- 2. Fortun, J., W.A. Dunn, S. Joy, J. Li, and L. Notterpek. 2003. Emerging role for autophagy in the removal of aggresomes in Schwann Cells. *J. Neurosci.* 23: 10672-10680.
- 3. Ellis, R.C., J.N. Earnhardt, R.L. Hayes, K.K. Wang, and D.K. Anderson. 2004. Cathepsin B mRNA and protein expression following contusion spinal cord injury in rats. *J. Neurochem.* 88:689-697.
- 4. Kiepe D. et al.: Defined carboxy-terminal fragments of insulin-like growth factor (IGF) binding protein 2 exert similar mitogenic activity on cultured rat growth plate chondrocytes as IGF-I. *Endocrinology.* 2008 Oct;149(10):4901-11. Epub 2008 Jun 12. PMID: 18556354

### Product Citations

- 1. **Mice lacking NKCC1 are protected from development of bacteremia and hypothermic sepsis secondary to bacterial pneumonia.** Nguyen M, A Pace, and B Koller *The Journal of Experimental Medicine* 204:1383-1393 (2007). **WB, mouse lung tissue lysates (used as a protein loading control): Fig 8.**
- 2. **Brain fatty acid binding protein (Fabp7) is diurnally regulated in astrocytes and hippocampal granule cell precursors in adult rodent brain.** Gerstner J, B Quentin, W Heyden, T Lavaute, J Yin, C Landry. *PLoS ONE* 3: e1631 (2008). **Imgenex antibodies cited [WB (mouse brain tissue)]:**
  - 1. **GAPDH - Loading Control (IMG-3073): Figs. 1A,B; 3.**
  - 2. **b-actin (IMG-5142A): Fig. 3.**
- 3. **Developmental regulation of the NMDA receptor subunits, NR3A and NR1, in human prefrontal cortex.** Henson M, A Roberts, K Salimi, S Vadlamudi, R Hamer, J Gilmore, L Jarskog, B Philpot. *Cerebral Cortex* doi:10.1093/cercor/bhn017 (2008). **WB (mouse frontal cortex lysates), Fig. 1.**

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