Human/Mouse/Rat GAPDH Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF5718

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat GAPDH/G3PDH in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human GAPDH-2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human GAPDH/G3PDH Met1-Ala150 Accession # P04406
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

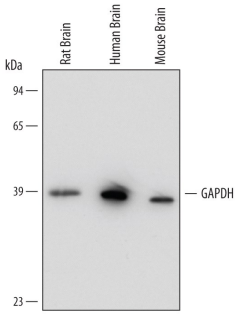
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

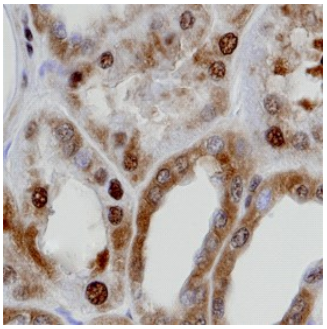
DATA

Western Blot



Detection of Human/Mouse/Rat GAPDH/G3PDH by Western Blot. Western blot shows lysates of mouse, human, and rat brain tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse/Rat GAPDH/G3PDH Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5718) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for GAPDH/G3PDH at approximately 38 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Immunohistochemistry



GAPDH/G3PDH in Human Kidney. GAPDH/G3PDH was detected in immersion fixed paraffin-embedded sections of normal human kidney using Goat Anti-Human/Mouse/Rat GAPDH/G3PDH Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5718) at 8 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei of convoluted tubules. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.This application has not been tested in mouse or rat samples.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) is a 36-40 kDa member of the GAPDH family of enzymes. It is a widely expressed heterotetramer that is found in both the nucleus and cytoplasm. Although GAPDH was initially identified as a glycolytic enzyme that converted G3P into 1,3 diphosphoglycerate, it is now recognized to participate in no less than endocytosis, membrane fusion, vesicular secretory transport, DNA replication and repair, and apoptosis. Human GAPDH is 335 amino acids (aa) in length and contains two NAD binding sites (Asp35 and Asn316) with a catalytic region between aa 151-155. GAPDH contains more than 19 posttranslational modifications, including methylation, deamidation and phosphorylation. One splice variant shows a 10 aa substitution for aa 319-335. Over amino acid 1-150, human GAPDH shares 92% aa identity with mouse GAPDH.