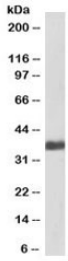
GAPDH Antibody Biotin Conjugate (R34148BTN)

Catalog No.	Formulation	Size
R34148BTN	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Predicted Reactivity	Dog
Format	Biotin Conjugate
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	2597
Applications	Western Blot : 1-3ug/ml IHC (paraffin) : suitable ELISA (peptide) LOD : 1:16000
Limitations	This GAPDH antibody is available for research use only.



Western blot testing of human liver lysate with biotinylated GAPDH antibody at 1ug/ml. Predicted molecular weight ~36kDa.

Description

GAPDH antibody is an essential reagent for research into glycolysis, protein normalization, and cell biology. The encoded protein, glyceraldehyde 3 phosphate dehydrogenase (GAPDH), is a key enzyme of energy metabolism that catalyzes the oxidative phosphorylation of glyceraldehyde 3 phosphate to 1,3 bisphosphoglycerate. Because GAPDH is abundantly and consistently expressed in nearly all tissues, it is frequently used as a housekeeping protein and loading control in

molecular assays. The availability of a biotin labeled format provides additional flexibility for detection systems that use avidin or streptavidin conjugates.

In addition to its role in glycolysis, GAPDH participates in diverse cellular processes including apoptosis, DNA repair, nuclear transport, and vesicle trafficking. Under stress conditions, GAPDH can translocate to the nucleus or mitochondria, where it influences cell survival pathways. Dysregulation of GAPDH has been implicated in cancer biology, metabolic disorders, and neurodegenerative disease, expanding its significance far beyond energy production.

Structurally, GAPDH is a tetramer composed of four identical subunits, each containing catalytic cysteine residues and NAD binding sites. This conserved architecture explains why GAPDH antibody is effective across species ranging from bacteria to mammals. In experimental systems, the proteinÃ¢Â€Â™s stable expression profile makes it a benchmark reference point for normalization, ensuring accurate comparison of target proteins across samples.

The biotin labeled GAPDH antibody offers unique advantages for experimental detection. By binding to streptavidin or avidin conjugates linked to enzymes or fluorophores, this format provides versatile options for western blotting, ELISA, immunohistochemistry, and immunofluorescence. The labeling enhances sensitivity and reduces background, making it especially useful in multiplex assays or when precise quantitation is required. Researchers studying metabolism, cell signaling, or disease models benefit from the improved versatility of this format.

The GAPDH antibody is indispensable in both basic and translational research. It is used to validate experimental consistency, confirm equal loading, and explore functional roles of GAPDH in cellular stress and disease. For scientists examining metabolism, apoptosis, or gene expression regulation, the GAPDH antibody in biotin conjugated form is a reliable and specific detection tool. NSJ Bioreagents provides validated antibodies that deliver reproducibility and precision for advanced molecular studies.

Application Notes

Optimal dilution of the GAPDH antibody should be determined by the researcher.

Immunogen

Amino acids GVNHEKYDNSLK were used as the immunogen for this GAPDH antibody.

Storage

Aliquot and store the GAPDH antibody at -20oC.

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