



Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH, GAPD, HGNC:4141, G3PD, MGC88685)

Catalog number

G8140-16K

Supplier

United States Biological

GAPDH is a 146kD tetramer composed of four 30-40kD subunits. Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) is a metabolic enzyme responsible for catalyzing one step in the glycolytic pathway, the reversible oxidative phosphorylation of glyceraldehyde 3-phosphate. Because GAPDH as a protein expressed in large amounts and which is required at all times for an important house keeping functions, levels of GAPDH mRNA are often used as standards in studies of mRNA expression. Increasingly, scientists are making use of specific antibodies to GAPDH as loading controls for western blotting experiments. Apart from a role in glycolysis, GAPDH may have other roles such as in the activation of transcription. GAPDH is reported to bind to a variety of other proteins, including the amyloid precursor protein, mutations in which cause some forms of Alzheimer's disease, and the polyglutamine tracts of Huntingtin, the protein product aberrant forms of which are causative of Huntington's disease. Associations with actin and tubulin have also been reported. The protein may also have a role in the regulation of apoptosis, and interestingly migrates from the cytoplasm into the nucleus when cells become apoptotic.

Applications

Suitable for use in Western Blot. Other applications not tested.

Recommended Dilution

Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. For long-term storage and to avoid repeated freezing and thawing, aliquot Store at -20°C. Aliquots are stable for at least 12 months at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Immunogen

The epitope recognized maps to a region between residues 250 and 300 of human Glyceraldehyde-3-Phosphate Dehydrogenase using the numbering given in entry NP_002037.2 (GeneID 2597).

Formulation

Supplied as a liquid in TBS, pH 7.2, 0.1% BSA.

Purity

Purified by immunoaffinity chromatography.

Specificity

Species Crossreactivity: Human and mouse. Other species have not been tested. Reactivity with X.



laevis GAPDH is expected owing to conservation of sequence between this ortholog and human GAPDH at the site to which the epitope maps.

Product Type

Pab

Source

human

Isotype

IgG

Grade

Affinity Purified

Applications

WB

Crossreactivity

Hu Mo

Storage

-20°C