

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GAPDH-2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human GAPDH and recombinant mouse GAPDH is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human GAPDH-2 Glu75-Ala222 Accession # O14556
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

GAPDH-2 (Glyceraldehyde-3-phosphate dehydrogenase 2; also GAPD2 and GAPDS) is a 40-44 kDa member of the GAPDH family of enzymes. Due to a high incidence of proline residues, it may migrate anomalously at 56 kDa in SDS-PAGE. GAPDH-2 is expressed only in testis as a homotetramer, where it is found in the cytoplasm bound to the sperm fibrous sheath. Unlike GAPDH that has multiple functions, GAPDH-2 appears to participate only in carbohydrate metabolism, generating energy via glycolysis for sperm motility and fertility. Human GAPDH-2 is 408 amino acids (aa) in length. There are two NAD binding sites (Asp106 and Asn388) with a catalytic region between aa 223-226. One splice variant shows a nine aa insertion after Ser220. Over aa 75-222, human GAPDH-2 shares 84% aa identity with mouse GAPDH-2.

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