

# Datasheet: AHP996

Description:	RABBIT ANTI GAPDH (C-TERMINAL)
Specificity:	GAPDH (C-TERMINAL)
Other names:	GLYCERALDEHYDE-3-PHOSPHATE DEHYDROGENASE
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 mg

# **Product Details**

#### **Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit <a href="https://www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			•	
Immunohistology - Frozen			•	
Immunohistology - Paraffin			•	
ELISA			•	
Immunoprecipitation			•	
Western Blotting	-			0.5 - 1.0ug/ml

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human	
Species Cross Reactivity	Reacts with: Mouse, Rat  N.B. Antibody reactivity and working conditions may vary between species.	
Product Form	Purified IgG - liquid	
Preparation	Antisera to human GAPDH (CT) were raised by repeated immunisation of rabbits with highly purified antigen.	
	Purified IgG prepared by affinity chromatography.	
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	0.02% Sodium Azide (NaN <sub>3</sub> )	
Approx. Protein Concentrations	IgG concentration 1.0mg/ml	

#### **Immunogen**

A 16 amino acid peptide located near human GAPDH carboxy-terminus.

# External Database Links

UniProt:

P04406 Related reagents

**Entrez Gene:** 

2597 GAPDH Related reagents

#### **Synonyms**

**GAPD** 

#### **Specificity**

**Rabbit anti GAPDH (C-Terminal) antibody** recognizes an epitope within the C-Terminal region (CT) of Glyceraldehyde-3-phosphate dehydrogenase (GAPDH), a glycolytic enzyme which plays a key role in energy production, and has also been implicated in numerous cellular processes.

GAPDH is a homotetramer molecule consisting of four 36kDa subunits, constitutively expressed in most cells and tissues, and is responsible for the generation of energy during carbohydrate metabolism, catalysing the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate.

The role of GAPDH as a multifunctional protein has emerged from many studies, confirming its involvement in critical nuclear pathways, apoptosis, membrane transport and fusion, DNA replication and repair and phosphotransferase activity. Furthermore, the ability of GAPDH to bind with high affinity to \(\beta\)-amyloid precursor protein (Alzheimers disease) and selectively with CAG mutated proteins, including huntingtin (Huntingdons disease) and the androgen receptor (spinobulbar muscular atrophy), has focused many studies towards the role of GAPDH in the pathogenesis of neurodegenerative diseases (De Santo et al. 2010).

#### Western Blotting

AHP996 detects a band of approximately 37kDa in HeLa cell lysates.

#### References

- 1. De Santo, C. *et al.* (2010) Invariant NKT cells modulate the suppressive activity of IL-10-secreting neutrophils differentiated with serum amyloid A. Nat Immunol. 11 (11): 1039-46.
- 2. Weeke-Klimp, A. *et al.* (2010) Epicardium-derived cells enhance proliferation, cellular maturation and alignment of cardiomyocytes. <u>J Mol Cell Cardiol. 49: 606-16.</u>
- 3. Deacon, K. and Knox, A.J. (2010) Endothelin-1 (ET-1) increases the expression of remodeling genes in vascular smooth muscle through linked calcium and cAMP pathways: role of a phospholipase A(2)(cPLA(2))/cyclooxygenase-2 (COX-2)/prostacyclin receptor-dependent autocrine loop. J Biol Chem. 285: 25913-27.

#### **Further Reading**

1. Mazzola, J.L. & Sirover, M.A. (2001) Reduction of glyceraldehyde-3-phosphate dehydrogenase activity in Alzheimer's disease and in Huntington's disease fibroblasts. <u>J Neurochem. 76 (2): 442-9.</u>
2. Sirover, M.A. (2005) New nuclear functions of the glycolytic protein, glyceraldehyde-3-phosphate dehydrogenase, in mammalian cells. J Cell Biochem. 95 (1): 45-52.

#### Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

#### Shelf Life

18 months from date of despatch.

# Health And Safety Information

Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf

**Regulatory** For research purposes only

# **Related Products**

North & South Tel: +1 800 265 7376

# **Recommended Secondary Antibodies**

Sheep Anti Rabbit IgG (STAR34...) FITC
Sheep Anti Rabbit IgG (STAR35...) RPE
Goat Anti Rabbit IgG (H/L) (STAR124...) HRP

Goat Anti Rabbit IgG (Fc) (STAR121...) Biotin, FITC, HRP

Sheep Anti Rabbit IgG (2AB02...) Biotin

Sheep Anti Rabbit IgG (STAR36...) <u>DyLight®488, DyLight®549, DyLight®649,</u>

Worldwide

DyLight®680, DyLight®800

# **Recommended Useful Reagents**

# TidyBlot™ WESTERN BLOT DETECTION REAGENT:HRP (STAR209P)

**America** Fax: +1 919 878 3751 Fax: +44 (0)1865 852 739 Fax: +49 (0) 89 8090 95 50

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#### Printed on 01 May 2018

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