

#5174 Store at -20°C

GAPDH (D16H11) XP® Rabbit mAb


Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, W-S, IHC-P, IF-IC	H M R Mk	Endogenous	37	Rabbit IgG	#P04406	2597

Product Usage Information

Application

Western Blotting
Simple Western™
Immunohistochemistry (Paraffin)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:10 - 1:50
1:800
1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #92310.

Specificity / Sensitivity

GAPDH (D16H11) XP® Rabbit mAb detects endogenous levels of total GAPDH protein.

Species predicted to react based on 100% sequence homology:

Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys260 of human GAPDH protein.

Background

Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) catalyzes the phosphorylation of glyceraldehyde-3-phosphate during glycolysis. Though differentially expressed from tissue to tissue (1), GAPDH is thought to be a constitutively expressed housekeeping protein. For this reason, GAPDH mRNA and protein levels are often measured as controls in experiments quantifying specific changes in expression of other targets. Recent work has elucidated roles for GAPDH in apoptosis (2), gene expression (3), and nuclear transport (4). GAPDH may also play a role in neurodegenerative pathologies such as Huntington and Alzheimer's diseases (4,5).

Background References

1. Barber, R.D. et al. (2005) *Physiol. Genomics* 21, 389-95.
2. Hara, M.R. and Snyder, S.H. (2006) *Cell Mol. Neurobiol.* 26, 527-38.
3. Zheng, L. et al. (2003) *Cell* 114, 255-66.
4. Bae, B.I. et al. (2006) *Proc. Natl. Acad. Sci. USA* 103, 3405-9.
5. Wang, Q. et al. (2005) *FASEB J.* 19, 869-71.
6. Kozako, T. et al. (2015) *Sci Rep* 5, 11345.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **W-S:** Simple Western™ **IHC-P:** Immunohistochemistry (Paraffin)
IF-IC: Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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