#5014 Store at -20°C

GAPDH (14C10) Rabbit mAb (Biotinylated)

✓ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #2597
Swiss-Prot Acc. #P04406

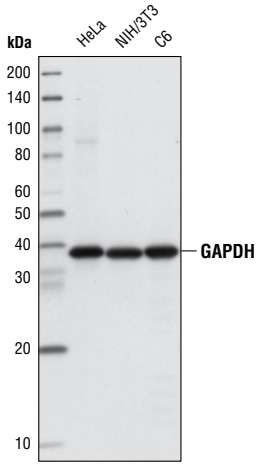
Applications	Species Cross-Reactivity	Molecular Wt.	Isotype
W, IF-IC, F Endogenous	H, M, R, Mk	37 kDa	Rabbit IgG

Description: This Cell Signaling Technology (CST) antibody is conjugated to biotin under optimal conditions. The unconjugated GAPDH (14C10) Rabbit mAb #2118 reacts with human, mouse, rat and monkey GAPDH. CST expects that GAPDH (14C10) Rabbit mAb (Biotinylated) will also recognize GAPDH in these species.

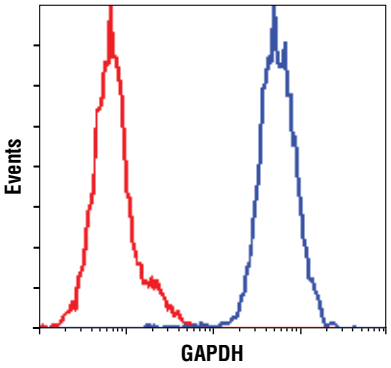
Background: Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) catalyzes the phosphorylation of glyceraldehyde-3-phosphate during glycolysis. Though differentially expressed from tissue to tissue (1), GAPDH is thought to be a constitutively expressed housekeeping protein. For this reason, GAPDH mRNA and 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).

Specificity/Sensitivity: GAPDH (14C10) Rabbit mAb (Biotinylated) detects endogenous levels of total GAPDH protein.

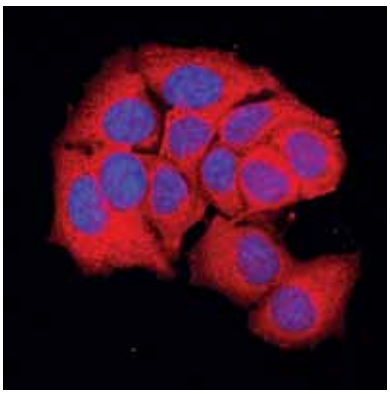
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide near the carboxy terminus of human GAPDH.



Western blot analysis of extracts from HeLa, NIH/3T3 and C6 cells using GAPDH (14C10) Rabbit mAb (Biotinylated).



Flow cytometric analysis of HeLa cells, using GAPDH (14C10) Rabbit mAb (Biotinylated) (blue) compared to XP™ Rabbit (DA1E) mAb IgG Isotype Control (Biotinylated) #4096 (red).



Confocal immunofluorescent analysis of MCF-7 cells using GAPDH (14C10) Rabbit mAb (Biotinylated) (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 2 mg/ml BSA, 50% glycerol. Store at -20°C.
Do not aliquot antibody.

Biotinylated antibodies are designed to be detected using streptavidin conjugates.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunofluorescence (IF-IC)	1:150
Flow Cytometry	1:200

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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.

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

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Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **All**—all species expected