

#3683 Store at -20°C

GAPDH (14C10) Rabbit mAb (HRP Conjugate)



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Entrez-Gene ID #2597
UniProt ID #P04406

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, M, R, Mk, B (Pg)	37 kDa	Rabbit IgG**

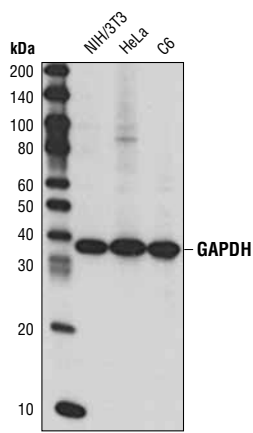
Description: This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The unconjugated GAPDH (14C10) Rabbit mAb #2118 reacts with human, mouse, rat and monkey GAPDH. CST expects that GAPDH (14C10) (HRP conjugate) #3683 will 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 (HRP Conjugate) 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. The antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups.

- 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.



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

Storage: Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity other than shown is determined by western blot using the unconjugated antibody.

HRP-conjugated antibodies do not require incubation with a secondary antibody.

Recommended Antibody Dilutions:
Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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

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U.S. Patent No. 5,675,063

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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 Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.