

# GAPDH (14C10) Rabbit mAb (Alexa Fluor® 488 Conjugate)

✓ 100 µl  
(50 tests)

New more concentrated formulation

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New 04/12/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

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

Applications	Species Cross-Reactivity*	Isotype
F, IF-IC Endogenous	H, M, R, Mk	Rabbit IgG

**Description:** This Cell Signaling Technology (CST) antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometry in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated antibody (GAPDH (14C10) Rabbit mAb #2118).

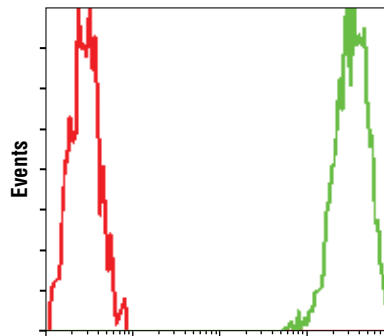
**Background:** Glycerinaldehyde-3-phosphate dehydrogenase (GAPDH) catalyzes the phosphorylation of glyceraldehyde-3-phosphate during glycolysis. Though differentially expressed from tissue to tissue (1), GAPDH is thought to be a constitutively expressed housekeeping protein. For this reason, GAPDH mRNA 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 (Alexa Fluor® 488 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. This antibody was conjugated to Alexa Fluor® 488 under optimal conditions with an F/P ratio of 2-6.

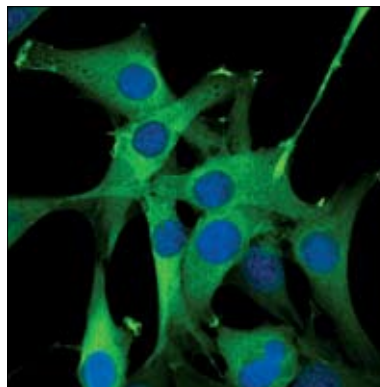
**Background References:**

- (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.



GAPDH (Alexa Fluor® 488 Conjugate)

Flow cytometric analysis of HeLa cells using GAPDH (14C10) Rabbit mAb (Alexa Fluor® 488 Conjugate) (green) compared to Rabbit (DA1E) mAb IgG Isotype Control (Alexa Fluor® 488 Conjugate) #2975 (red).



Confocal immunofluorescent analysis of C2C12 cells using GAPDH (14C10) (Alexa Fluor® 488 Conjugate) Rabbit mAb (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

**Storage:** Supplied in PBS (pH 7.2), less than 0.1% sodium azide, 2 mg/ml BSA. Store at 4°C. *Protect from light. Do not freeze.*

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

**Recommended Antibody Dilutions:**

Flow Cytometry 1:50  
Immunofluorescence (IF-IC) 1:1600

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

The Alexa Fluor® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc., for research use only, except for use in combination with DNA microarrays. The Alexa Fluor® dyes (except for Alexa Fluor® 430 dye) are covered by pending and issued patents.

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