

#5522 Store at -20°C

14-3-3 γ (D15B7) Rabbit mAb



Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 02/03/16

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

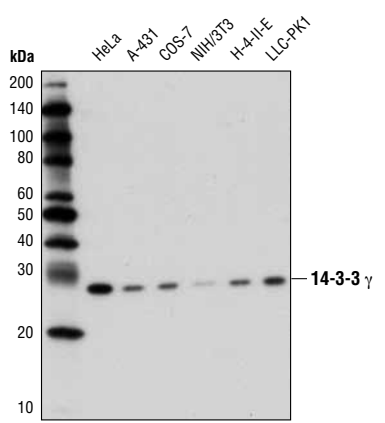
Applications W Endogenous	Species Cross-Reactivity* H, M, R, Mk, Pg, (C, X, Z)	Molecular Wt. 27 kDa	Isotype Rabbit IgG**
---------------------------------	---	-------------------------	-------------------------

Background: The 14-3-3 family of proteins plays a key regulatory role in signal transduction, checkpoint control, apoptotic and nutrient-sensing pathways (1,2). 14-3-3 proteins are highly conserved and ubiquitously expressed. There are at least seven isoforms, β , γ , ϵ , σ , ζ , τ , and η that have been identified in mammals. The initially described α and δ isoforms are confirmed to be phosphorylated forms of β and ζ , respectively (3). Through their amino-terminal α helical region, 14-3-3 proteins form homo- or heterodimers that interact with a wide variety of proteins: transcription factors, metabolic enzymes, cytoskeletal proteins, kinases, phosphatases, and other signaling molecules (3,4). The interaction of 14-3-3 proteins with their targets is primarily through a phospho-Ser/Thr motif. However, binding to divergent phospho-Ser/Thr motifs, as well as phosphorylation independent interactions has been observed (4). 14-3-3 binding masks specific sequences of the target protein, and therefore, modulates target protein localization, phosphorylation state, stability, and molecular interactions (1-4). 14-3-3 proteins may also induce target protein conformational changes which modify target protein function (4,5). Distinct temporal and spatial expression patterns of 14-3-3 isoforms have been observed in development and in acute response to extracellular signals and drugs, suggesting that 14-3-3 isoforms may perform different functions despite their sequence similarities (4). Several studies suggest that 14-3-3 isoforms are differentially regulated in cancer and neurological syndromes (2,3).

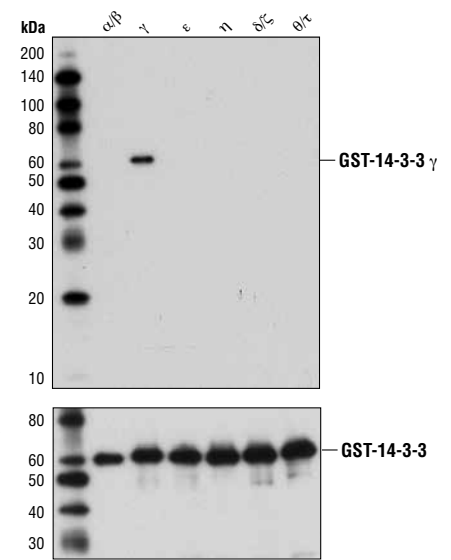
Specificity/Sensitivity: 14-3-3 γ (D15B7) Rabbit mAb recognizes endogenous levels of total 14-3-3 γ protein. This antibody does not cross-react with other mammalian 14-3-3 isoforms and is predicted to detect 14-3-3 γ orthologs in other species, including frog and fish.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile79 of human 14-3-3 γ protein.

Isoform specificity of 14-3-3 γ (D15B7) Rabbit mAb. Recombinant, purified, GST-tagged 14-3-3 protein isoforms (2 μ g each) were resolved by SDS-PAGE, transferred to nitrocellulose and blotted with either 14-3-3 γ (D15B7) Rabbit mAb (upper) or GST (91G1) Rabbit mAb #2625 (lower).



Western blot analysis of extracts from various cell lines using 14-3-3 γ (D15B7) Rabbit mAb.



Entrez-Gene ID #7532
Swiss-Prot Acc. #P61981

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

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
Western blotting 1:1000

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) Muslin, A.J. and Xing, H. (2000) *Cell Signal* 12, 703-9.
(2) Mackintosh, C. (2004) *Biochem. J.* 381, 329-42.
(3) Dougherty, M.K. and Morrison, D.K. (2004) *J. Cell Sci.* 117, 1875-84.
(4) Yaffe, M.B. (2002) *FEBS Lett.* 513, 53-7.
(5) Bridges, D. and Moorhead, G.B. (2004) *Sci. STKE* 2004, re10.

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.

© 2011 Cell Signaling Technology, Inc. Cell Signaling Technology® is a trademark of Cell Signaling Technology, Inc.

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.