Revision 1

Store at -20C

#4944

HR6A/HR6B Antibody

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:
W, IF-IC, FC-FP	H M R Mk	Endogenous	17	Rabbit

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:100
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

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

Specificity/Sensitivity

HR6A/HR6B Antibody detects endogenous levels of total HR6A and HR6B proteins.

Species predicted to react based on 100% sequence homology

Chicken, D. melanogaster, Xenopus, Zebrafish

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids at the amino-terminus of human HR6A. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The ubiquitin-conjugating (UBC) enzymes HR6A and HR6B are the mammalian orthologues of the Saccharomyces cerevisiae Rad6 gene products (1). In S. cerevisiae, Rad6 facilitates cell cycle progression and ubiquitinates histone H2B (2,3). In vivo phosphorylation of HR6A Ser120 by cyclin-dependent kinases is thought to be important for the coordination and timing of ubiquitination events involved in cell cycle progression (4). In response to DNA damage, HR6A is known to interact physically with p53 and p14ARF, but knockout mice lacking HR6A or HR6B exhibit normal DNA damage responses (5,6). HR6B knockout males exhibit defective spermatogenesis, while HR6A knockout females fail to produce viable offspring (6).

Background References

1. Koken, M. H. et al. (1991) *Proc. Natl. Acad. Sci. USA* 88, 8865-8869.
2. Ellison, K. S. et al. (1991) *J. Biol. Chem.* 266, 24116-24120.
3. Robzyk, K. et al. (2000) *Science* 287, 501-504.
4. Sarcevic, B. et al. (2002) *EMBO J.* 21, 2009-2018.
5. Lyakhovich, A. and Shekhar, M.P. (2003) *Mol. Cell. Biol.* 23, 2463-2475.
6. Roest, H. P. et al. (2004) *Mol. Cell. Biol.* 24, 5485-5495.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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Limited Uses

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