

#5332 Store at -20°C

Desmin (D93F5) XP™ Rabbit mAb



✓ 100 µl
(10 western blots)

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

rev. 11/19/10

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.

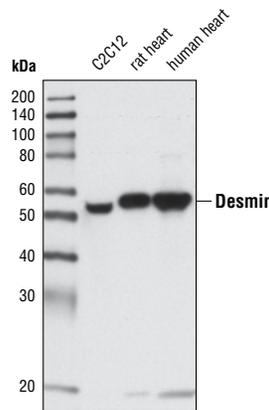
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IF-IC, IF-F Endogenous	H, M, R, (Mk)	53 kDa	Rabbit IgG**

Background: The cytoskeleton consists of three types of cytosolic fibers: microfilaments (actin filaments), intermediate filaments and microtubules. Major types of intermediate filaments are distinguished and expressed in particular cell types: cytokeratins (epithelial cells), glial fibrillary acidic protein or GFAP (glial cells), desmin (skeletal, visceral and certain vascular smooth muscle cells), vimentin (mesenchyme origin) and neurofilaments (neurons). GFAP and vimentin form intermediate filaments in astroglial cells and modulate their motility and shape (1). In particular, vimentin filaments are present at early developmental stages, while GFAP filaments are characteristic of differentiated and mature brain astrocytes. Thus, GFAP is commonly used as a marker for intracranial and intraspinal tumors arising from astrocytes (2). Vimentin is present in sarcomas, but not carcinomas, and its expression is examined relative to other markers to distinguish between the two forms of neoplasm (3).

Desmin is a myogenic marker expressed in early development that forms a network of filaments that extends across the myofibril and surrounds Z discs. The desmin cytoskeleton provides a connection among myofibrils, organelles and the cytoskeleton (4). Desmin knockout mice develop cardiomyopathy, skeletal and smooth muscle defects (5). In humans, desmin related myopathies might be caused by mutations in the corresponding desmin gene or in proteins with which desmin interacts, including αB-crystallin and synemin. Disorganized desmin filaments and the accumulation of protein aggregates comprised predominantly of desmin characterize desmin-related myopathies (reviewed in 6,7).

Specificity/Sensitivity: Desmin (D93F5) XP™ Rabbit mAb detects endogenous levels of total desmin protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to carboxy terminal residues of human desmin protein.



Western blot analysis of extracts from C2C12 cells, rat heart and human heart using Desmin (D93F5) XP™ Rabbit mAb.

Background References:

- (1) Eng, L.F. et al. (2000) *Neurochem Res* 25, 1439-51.
- (2) Goebel, H.H. et al. (1987) *Acta Histochem Suppl* 34, 81-93.
- (3) Leader, M. et al. (1987) *Histopathology* 11, 63-72.
- (4) Capetanaki, Y. et al. (2007) *Exp Cell Res* 313, 2063-76.
- (5) Li, Z. et al. (1996) *Dev Biol* 175, 362-6.
- (6) Paulin, D. and Li, Z. (2004) *Exp Cell Res* 301, 1-7.
- (7) Paulin, D. et al. (2004) *J Pathol* 204, 418-27.

Entrez-Gene ID #1674
Swiss-Prot Acc. #P17661

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/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.

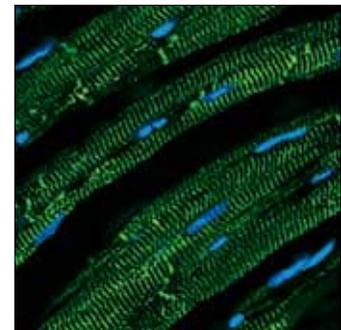
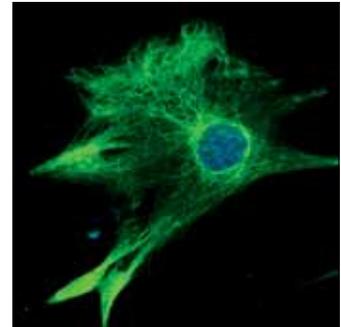
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunofluorescence (IF-IC)	1:100
Immunofluorescence (IF-F)	1:100

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

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



Confocal immunofluorescent analysis of C2C12 cells (upper) and mouse heart tissue (lower) using Desmin (D93F5) XP™ Rabbit mAb (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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.

DRAQ5® is a registered trademark of Biostatus Limited.

© 2010 Cell Signaling Technology, Inc. XP™ and Cell Signaling Technology® are trademarks 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.