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#20772

## DR3 (D403X) Rabbit mAb

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New 01/16

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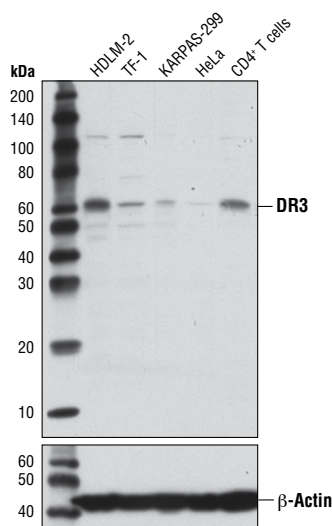
Applications W Endogenous	Species Cross-Reactivity* H, (M, R)	Molecular Wt. 55-60 kDa	Isotype Rabbit IgG**
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**Background:** The tumor necrosis factor receptor family, which includes TNF-R1, Fas, DR3, DR4, DR5, and DR6, plays an important role in the regulation of apoptosis in various physiological systems (1,2). The receptors are activated by a family of cytokines that include TNF, FasL, and TRAIL. They are characterized by a highly conserved extracellular region containing cysteine-rich repeats and a conserved intracellular region of about 80 amino acids termed the death domain (DD). The DD is important for transducing the death signal by recruiting other DD containing adaptor proteins (FADD, TRADD, RIP) to the death-inducing signaling complex (DISC), resulting in activation of caspases.

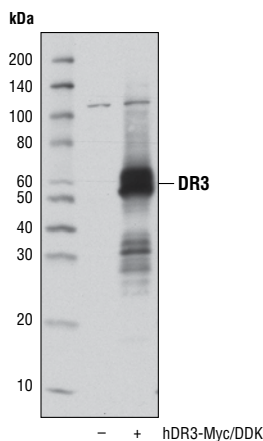
DR3/WSL-1/Apo-3/TRAMP/LARD is a TNFR family member containing the characteristic extracellular cysteine-repeats, transmembrane region, and an intracellular DD (3-7). DR3 is activated by its ligand Apo-3L/TWEAK to induce apoptosis and activation of NF- $\kappa$ B (8,9). Like TNF-R1, DR3 binds to the DD adaptor protein TRADD, which can then associate with other DD proteins like FADD and RIP as well as members of the TRAF family (3,4). Tissue expression of DR3 is very restricted, primarily seen on the surface of activated thymocytes and lymphocytes and plays an important role in thymocyte negative selection (3,4,10). Studies have also indicated an association with DR3 and rheumatoid arthritis (11,12).

**Specificity/Sensitivity:** DR3 (D403X) Rabbit mAb recognizes endogenous levels of total DR3 protein. A band of unknown origin is detected at at 110 kDa in some cell lines.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu335 of human DR3 protein. The antigen resides within the cytoplasmic domain of DR3.



Western blot analysis of various cell lines using DR3 (D403X) Rabbit mAb (upper), or  $\beta$ -Actin (D6A8) Rabbit mAb #8457 (lower). KARPAS cell line source: Dr. Abraham Kapas at the University of Cambridge.



Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with a construct expressing Myc/DDK-tagged full length human DR3 (hDR3-Myc/DDK; +) using DR3 (D403X) Rabbit mAb.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ 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 product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com)

**Background References:**

- (1) Chinnaiyan, A.M. et al. (1996) *Science* 274, 990-2.
- (2) Kitson, J. et al. (1996) *Nature* 384, 372-5.
- (3) Marsters, S.A. et al. (1996) *Curr Biol* 6, 1669-76.
- (4) Bodmer, J.L. et al. (1997) *Immunity* 6, 79-88.
- (5) Screaton, G.R. et al. (1997) *Proc Natl Acad Sci U S A* 94, 4615-9.
- (6) Marsters, S.A. et al. (1998) *Curr Biol* 8, 525-8.
- (7) Kaptein, A. et al. (2000) *FEBS Lett* 485, 135-41.
- (8) Wang, E.C. et al. (2001) *Mol Cell Biol* 21, 3451-61.
- (9) Osawa, K. et al. (2004) *Genes Immun* 5, 439-43.
- (10) Borysenko, C.W. et al. (2005) *Biochem Biophys Res Commun* 328, 794-9.
- (11) Osawa, K. et al. (2004) *Genes Immun* 5, 439-43.
- (12) Borysenko, C.W. et al. (2005) *Biochem Biophys Res Commun* 328, 794-9.

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

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