



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

Store at -20C
#8074

DR5 (D4E9) XP[®] Rabbit mAb

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

Applications: W, IP, IF-IC	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 40, 48	Source/Isotype: Rabbit IgG	UniProt ID: #O14763	Entrez-Gene Id: 8795
--------------------------------------	-------------------------	-----------------------------------	----------------------------	--------------------------------------	-------------------------------	--------------------------------

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100
1:50

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.

For a carrier free (BSA and azide free) version of this product see product #83026.

Specificity/Sensitivity

DR5 (D4E9) XP[®] Rabbit mAb recognizes endogenous levels of total DR5 protein. This antibody detects both the short and long isoforms of DR5.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg260 within the cytoplasmic region of human DR5 protein.

Background

The tumor necrosis factor receptor family, which includes TNF-RI, 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 TNF-related apoptosis-inducing ligand (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.

DR5 is a receptor for TNF-related apoptosis inducing ligand (TRAIL), which has been shown to induce apoptosis in a variety of cell types and has been targeted for cancer therapy (1-5). Structurally, DR5 contains an amino-terminal leader cleavage site, followed by an extracellular region containing two cysteine-rich repeats, a central transmembrane domain, and a carboxy-terminal DD. DR5 is expressed in a wide variety of tissues and is a transcriptional target of p53 (6-8). It induces apoptosis through a FADD-dependent pathway. Deletion of DR5 leads to resistance in TRAIL-mediated apoptosis as well as an abrogated response to DNA-damaging stimuli (9). At least two isoforms of DR5 are produced by alternative splicing (10).

Background References

- Nagata, S. (1997) *Cell* 88, 355-65.
- Thorburn, A. (2004) *Cell Signal* 16, 139-44.
- Wiley, S.R. et al. (1995) *Immunity* 3, 673-82.
- Walczak, H. et al. (1997) *EMBO J* 16, 5386-97.
- Chaudhary, P.M. et al. (1997) *Immunity* 7, 821-30.
- MacFarlane, M. et al. (1997) *J Biol Chem* 272, 25417-20.
- Wu, G.S. et al. (2000) *Adv Exp Med Biol* 465, 143-51.
- Wu, G.S. et al. (1997) *Nat Genet* 17, 141-3.
- Finnberg, N. et al. (2005) *Mol Cell Biol* 25, 2000-13.
- Screaton, G.R. et al. (1997) *Curr Biol* 7, 693-6.

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 **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

XP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.