

# DR5 (D-6): sc-166624

## BACKGROUND

Tumor necrosis factor (TNF) is a pleiotropic cytokine whose function is mediated by two distinct cell surface receptors, designated TNF-R1 and TNF-R2, which are expressed on most cell types. TNF function is primarily mediated through TNF-R1 signaling. Both receptors belong to the growing TNF receptor superfamily which includes Fas antigen and CD40. TNF-R1 contains a cytoplasmic motif, termed the "death domain", that has been found to be necessary for the transduction of the apoptotic signal. The death domain is also found in several other receptors, including Fas, DR2 (or TRUNDD), DR3 (death receptor 3), DR4 and DR5. TRUNDD, DR4 and DR5 are receptors for the apoptosis-inducing cytokine TRAIL. A non-death domain-containing receptor, designated decoy receptor (DcR1 or TRID), also specifically associates with TRAIL and may play a role in cellular resistance to apoptotic stimuli.

## CHROMOSOMAL LOCATION

Genetic locus: TNFRSF10B (human) mapping to 8p21.3.

## SOURCE

DR5 (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 48-76 within an internal region of DR5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DR5 (D-6) is available conjugated to agarose (sc-166624 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166624 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166624 PE), fluorescein (sc-166624 FITC), Alexa Fluor<sup>®</sup> 488 (sc-166624 AF488), Alexa Fluor<sup>®</sup> 546 (sc-166624 AF546), Alexa Fluor<sup>®</sup> 594 (sc-166624 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-166624 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-166624 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-166624 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166624 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

DR5 (D-6) is recommended for detection of DR5 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DR5 siRNA (h): sc-40237, DR5 shRNA Plasmid (h): sc-40237-SH and DR5 shRNA (h) Lentiviral Particles: sc-40237-V.

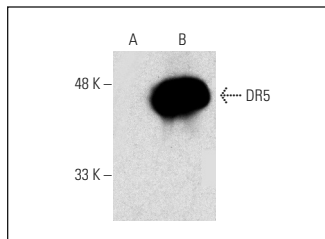
Molecular Weight of DR5: 48 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207 or DR5 (h): 293 Lysate: sc-110563.

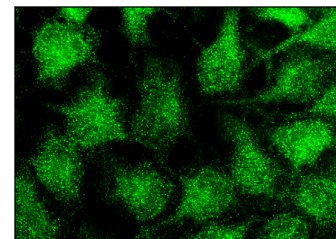
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



DR5 (D-6) HRP: sc-166624 HRP. Direct western blot analysis of DR5 expression in non-transfected: sc-110760 (A) and human DR5 transfected: sc-110563 (B) 293 whole cell lysates.



DR5 (D-6): sc-166624. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## SELECT PRODUCT CITATIONS

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- Lee, D.H., et al. 2014. Digitoxin sensitizes glioma cells to TRAIL-mediated apoptosis by upregulation of death receptor 5 and downregulation of survivin. *Anti-cancer Drugs* 25: 44-52.
- Mota, A., et al. 2015.  $\alpha$ -Hispanolol sensitizes hepatocellular carcinoma cells to TRAIL-induced apoptosis via death receptor up-regulation. *Toxicol. Appl. Pharmacol.* 286: 168-177.
- Lee, C.T., et al. 2017. Subtype-specific radiation response and therapeutic effect of Fas death receptor modulation in human breast cancer. *Radiat. Res.* 188: 169-180.
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- Fancy, R.M., et al. 2018. Calmodulin antagonist enhances DR5-mediated apoptotic signaling in TRA-8 resistant triple negative breast cancer cells. *J. Cell. Biochem.* 119: 6216-6230.
- Song, D., et al. 2018. *Pseudomonas aeruginosa* quorum-sensing metabolite induces host immune cell death through cell surface lipid domain dissolution. *Nat. Microbiol.* 4: 97-111.
- Kim, M.K., et al. 2018. Reciprocal negative regulation between the tumor suppressor protein p53 and B cell CLL/lymphoma 6 (BCL6) via control of caspase-1 expression. *J. Biol. Chem.* 294: 299-313.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.