BACKGROUND

Tumor necrosis factor (TNF) is a pleiotropic cytokine whose function is mediated through two distinct cell surface receptors. These receptors, designated TNF-R1 and TNF-R2, are expressed on most cell types. The majority of TNF functions are primarily mediated through TNF-R1, while signaling through TNF-R2 occurs less extensively and is confined to cells of the immune system. Both of these proteins belong to the growing TNF and nerve growth factor (NGF) receptor superfamily, which includes FAS, CD30, CD27, and CD40. The members of this superfamily are type I membrane proteins that share sequence homology confined to the extracellular region. TNF-R1 shares a motif coined the “death domain” with FAS and three structurally unrelated signaling proteins, TRADD, FADD, and RIP. This “death domain” is required for transduction of the apoptotic signal.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF1A (human) mapping to 12p13.31; Tnfrsf1a (mouse) mapping to 6F3.

SOURCE

TNF-R1 (H-5) is a mouse monoclonal antibody raised against amino acids 30-301 mapping within the extracellular domain of TNF-R1 of human origin.

PRODUCT

Each vial contains 200 µg IgG2b in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TNF-R1 (H-5) is available conjugated to agarose (sc-8436AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8436HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-8436PE), fluorescein (sc-8436FITC), Alexa Fluor® 488 (sc-8436AF488) or Alexa Fluor® 647 (sc-8436AF647), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

TNF-R1 (H-5) is recommended for detection of TNF-R1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [starting dilution 1:200, dilution range 1:100-1:1000], immunoprecipitation (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 TNF-R1 siRNA (h): sc-29507, TNF-R1 siRNA (m): sc-36688, TNF-R1 shRNA Plasmid (h): sc-29507-SH, TNF-R1 shRNA Plasmid (m): sc-36688-SH, TNF-R1 shRNA (h) Lentiviral Particles: sc-29507-V and TNF-R1 shRNA (m) Lentiviral Particles: sc-36688-V.

Molecular Weight of TNF-R1: 55 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or U-937 cell lysate: sc-2239.

STORAGE

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

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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