

anti-TNF-R1

Cat #: HM1373
Rabbit polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

Tumor Necrosis Factor (TNF) is a cytokine whose function is mediated through two distinct cell surface receptors: TNFR 1 and TNFR 2. They belong to the TNF receptor superfamily, which also includes FAS, CD30, CD27 and CD40. The members of this superfamily are type I membrane proteins that share sequence homology in the extracellular region. TNF-R1 is expressed in most mammalian cells and the majority of TNF functions are primarily mediated through TNF-R1, while signaling through TNF-R2 occurs less extensively and is found predominantly in the cells of the immune system. While TNF-R1 and TNF-R2 share sequence homology in the extracellular domains, their intracellular domains lack sequence homology, suggesting that they differ in their internal signal transduction pathways. TNF-R1 contains an approximately 80 amino acid death domain near its carboxy terminus capable of transmitting an apoptotic signal through its interaction with TRADD (TNF-R1 associated death domain protein), and subsequent interactions with FADD. TNF-R1 can also activate the transcription factor NFκB via TRAF2 (TNF receptor associated factor 2). The cytoplasmic domain of TNF-R1 can directly interact with Jak kinase, thereby activating the JAK/STAT signal transduction cascade.

SPECIFICITY

This antibody reacts with TNF-R1 of mouse, rat and human origin. It can be used in Western blotting, immunoprecipitation and immunohistochemistry.

Molecular Weight of TNF-R1: 55 kDa.

IMMUNOGEN

Recombinant protein corresponding to the extracellular domain of human TNF-R1.

STORAGE

This antibody is stable for 12 months when stored at 2-8°C.

REFERENCES

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