



## Polyclonal Anti-Tumor Necrosis Factor Receptor 1, *TNFR1* (Sephacose Bead Conjugate)

**Catalogue No.** PA1210-S

**Lot No.** 01210121110121

**Ig type:** rabbit IgG

**Size:** 100µg/vial

**Specificity**

Human. No cross reactivity with other proteins.

**Recommended application**

(Immunoprecipitation(IP))

**Immunogen**

A synthetic peptide corresponding to a sequence at the middle region of human TNFR1 (195-211 aa), identical to the related rat and mouse sequence.

**Purification**

Immunogen affinity purified.

**Formulation**

50% slurry in PBS pH 7.2 with 0.01mg NaN<sub>3</sub>a<sub>3</sub> preservative.

**Storage**

Store at 4°C for frequent use.

**Description:**

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

## BACKGROUND

Tumor necrosis factor receptor 1(TNFR1), a potent cytokine, elicits a broad spectrum of biologic responses which are mediated by binding to a cell surface receptor. Its gene is located on 12p13.2. The coding region and the 3-prime untranslated region of TNFR1 are distributed over 10 exons.1 There are 2 different proteins that serve as major receptors for TNF-alpha, one associated with myeloid cells and one associated with epithelial cells.2 Additionally, TNFR1 associates with the MADD protein through a death domain-death domain interaction. MADD provides a physical link between TNFR1 and the induction of mitogen-activated protein (MAP) kinase (e.g., ERK2) activation and arachidonic acid release.3 TNFR1-induced apoptosis involves 2 sequential signaling complexes. Complex I, the initial plasma membrane-bound complex, consists of TNFR1, the adaptor TRADD, the kinase RIP1, and TRAF2 and rapidly signals activation of NF-kappa-B. In a second step, TRADD and RIP1 associate with FADD and caspase-8, forming a cytoplasmic complex, complex II.4

## REFERENCE

- 1.Fuchs, P.; Strehl, S.; Dworzak, M.; Himmler, A.; Ambros, P. F. : Structure of the human TNF receptor 1 (p60) gene (TNFR1) and localization to chromosome 12p13. *Genomics* 13: 219-224, 1992.
- 2.Hohmann, H.-P.; Remy, R.; Brockhaus, M.; van Loon, A. P. G. M. : Two different cell types have different major receptors for human tumor necrosis factor (TNF-alpha). *J. Biol. Chem.* 264: 14927-14934, 1989.
- 3.Schievella, A. R.; Chen, J. H.; Graham, J. R.; Lin, L.-L. : MADD, a novel death domain protein that interacts with the type 1 tumor necrosis factor receptor and activates mitogen-activated protein kinase. *J. Biol. Chem.* 272: 12069-12075, 1997.
- 4.Micheau, O.; Tschopp, J. : Induction of TNF receptor I-mediated apoptosis via two sequential signaling complexes. *Cell* 114: 181-190, 2003.

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**Contact:** Antagene, Inc. | Tel: 1 (866) 964-2589 | Fax: 1 (888) 225-1868 | Email:Info@antageneinc.com