Anti-TNF Receptor II Antibody

HA500332

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-P, FC
Molecular Wt:	48 kDa

Description: Tumor necrosis factor receptor 2 (TNFR2), also known as tumor necrosis factor receptor superfamily member 1B (TNFRSF1B) and CD120b, is one of two membrane receptors that binds tumor necrosis factor-alpha (TNFα). Like its counterpart, tumor necrosis factor receptor 1 (TNFR1), the extracellular region of TNFR2 consists of four cysteine-rich domains which allow for binding to TNFα. TNFR1 and TNFR2 possess different functions when bound to TNFα due to differences in their intracellular structures, such as TNFR2 lacking a death domain (DD). The protein encoded by this gene is a member of the tumor necrosis factor receptor superfamily, which also contains TNFRSF1A. This protein and TNF-receptor 1 form a heterocomplex that mediates the recruitment of two anti-apoptotic proteins, c-IAP1 and c-IAP2, which possess E3 ubiquitin ligase activity. The function of IAPs in TNF-receptor signalling is unknown, however, c-IAP1 is thought to potentiate TNF-induced apoptosis by the ubiquitination and degradation of TNF-receptor-associated factor 2 (TRAF2), which mediates anti-apoptotic signals. Knockout studies in mice also suggest a role of this protein in protecting neurons from apoptosis by stimulating antioxidative pathways.

Immunogen: Recombinant protein within human TNFR2 aa 20-461 / 461.

Positive control: Rat epididymis tissue, human uterus tissue, mouse testis tissue, HepG2.

Subcellular location: Cell membrane, Secreted.

Database links: SwissProt: P20333 Human | P25119 Mouse | Q80WY6 Rat

Recommended Dilutions:

IHC-P	1:50-1:100
FC	1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 1% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Immunogen affinity purified.

Images

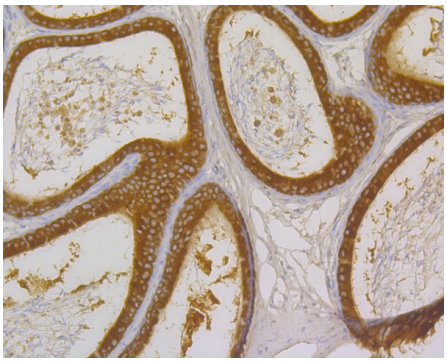

Fig1: Immunohistochemical analysis of paraffin-embedded rat epididymis tissue using anti-TNF Receptor II antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500332, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

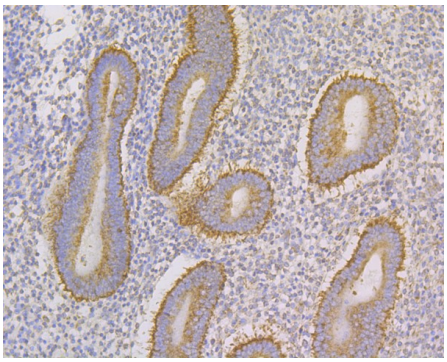

Fig2: Immunohistochemical analysis of paraffin-embedded human uterus tissue using anti-TNF Receptor II antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500332, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

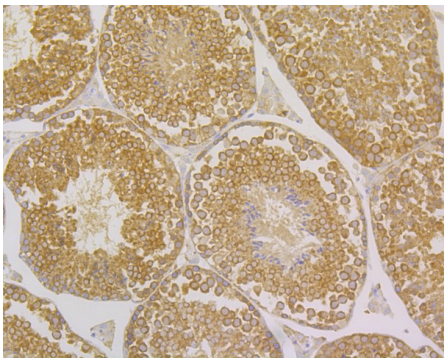

Fig3: Immunohistochemical analysis of paraffin-embedded mouse testis tissue using anti-TNF Receptor II antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500332, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

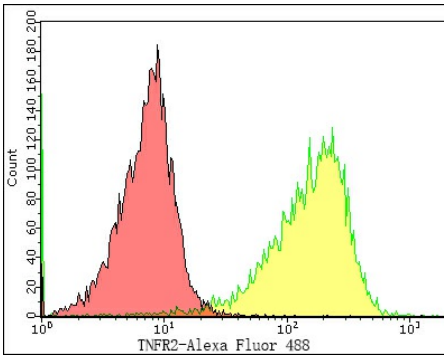

Fig4: Flow cytometric analysis of TNF Receptor II was done on HepG2 cells. The cells were fixed, permeabilized and stained with the primary antibody (HA500332, 1/50) (yellow). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; red).

Background References

1. Gao Y et al. Single-cell transcriptomics identify TNFRSF1B as a novel T-cell exhaustion marker for ovarian cancer. Clin Transl Med. 2023 Sep
2. Carvalho BF et al. TNFRSF1B Gene Variants in Clinicopathological Aspects and Prognosis of Patients with Cutaneous Melanoma. Int J Mol Sci. 2024 Mar