

## Product datasheet for **BM4053B**

### **TNFRSF1A Mouse Monoclonal Antibody [Clone ID: htr9]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	htr9
<b>Applications:</b>	FC, IHC, WB
<b>Recommended Dilution:</b>	Flow cytometry: 10 µg/ml, use 5 µl of neat antibody to label 10e6 cells. Immunohistochemistry (IHC) on: Frozen sections: 4-8 µg/ml (1/50-1/100). Paraffin sections: 20 µg/ml (1:20); pretreatment not necessary. Suggested positive control: Human tonsil.

#### **Antigen distribution on Tissue sections:**

Immunohistochemical staining in normal tissue is confined to the lymphohistiocytic tissue, which includes the thymus and lymphoid organs such as spleen, tonsils, lymph nodes, mucosa, and associated lymphoid tissue (7). Expression of p55 and p75 receptors can be detected in different areas where an overlapping is found between TNFR p75 and IL-2 receptor expression. The p75 expression can be detected mainly in the T-cell area whereas the p55 expression is restricted to dendritic reticulum cells in the germinal centres.

In non-lymphoid organs (kidney, liver, heart, brain, adrenals, uterus, ovary, testes, prostate, stomach, intestines) utr 1 recognizes some interstitial reticulum cells in the kidney only.

Cells which are known to respond to TNF namely endothelial cells, smooth muscle cells and fibroblasts did not show expression of p55 and or p75 TNF receptor (7). Investigations on pathological tissues show a TNFR p75 expression on epitheloid cell granulomas and giant cells in sarcoidosis.

<b>Reactivity:</b>	Human
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Partially purified preparation of TNF binding protein from HL-60 cells.



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<b>Specificity:</b>	Specific for Human: CD120 a, TNF receptor 55 kD. htr 9 is useful for studying biological effects of TNF-receptor p55 in vitro. The antibody inhibits the binding of radiolabelled TNF to human cells expressing the p55 TNF receptor. In order to obtain complete inhibition of TNF binding to the cell surface, 10 µg/ml of htr-9 are required. htr 9 itself may have an agonistic effect in assays measuring cytotoxicity, fibroblast growth or IL-6 secretion.
<b>Formulation:</b>	PBS, pH 7.2 with 0.01% Thimerosal as preservative and 10 mg/ml BSA as stabilizer. Label: Biotin State: Lyophilized purified IgG fraction.
<b>Reconstitution Method:</b>	Restore with 0.6 ml distilled water.
<b>Concentration:</b>	0.4 mg/ml
<b>Purification:</b>	Affinity chromatography.
<b>Conjugation:</b>	Biotin
<b>Storage:</b>	Store the antibody at 2-8°C for one month or (in aliquots) at -20°C for longer. Do not freeze working dilutions Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: One year from despatch.
<b>Gene Name:</b>	tumor necrosis factor receptor superfamily member 1A
<b>Database Link:</b>	<a href="#">Entrez Gene 7132 Human P19438</a>
<b>Background:</b>	<p>Tumor Necrosis Factor (TNF) is a cytokine whose function is mediated through two distinct cell surface receptors (TNF Receptor I and TNF Receptor II) that are included in the TNF Receptor superfamily along with FAS antigen and CD40. TNF Receptors I and II are 55 and 75 kDa members, respectively, of a family of cell surface molecules including nerve growth factor receptor, Fas/Apo1, CD30, OX40, and 41BB, which are characterized by cysteine rich motifs in the extracellular domain. While TNF Receptor I and TNF Receptor II share 28% sequence homology in the extracellular domains, their intracellular domains lack sequence homology, suggesting that they differ in their internal signal transduction pathways. TNF Receptor I contains an approximately 80 amino acid death domain near its carboxy terminus capable of transmitting an apoptotic signal through its interaction with TRADD (TNF Receptor I associated death domain protein), and subsequent interactions with FADD. TNF Receptor I can also activate the transcription factor NFκB via TRAF2 (TNF Receptor associated factor 2). The cytoplasmic domain of TNF Receptor I can directly interact with Jak kinase, thereby activating the JAK/STAT signal transduction cascade.</p> <p>TNF Receptor I is expressed by virtually all nucleated mammalian cells, including hepatocytes, monocytes and neutrophils, cardiac muscle cells, endothelial cells, and CD34 + hematopoietic progenitors. Both TNF alpha and TNF beta bind to TNF Receptor I.</p>
<b>Synonyms:</b>	Tumor necrosis factor receptor 1, TNF-R1, TNF-RI, TNFR-I, p55, p60, Tnfrsf1a