OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for BM4053

TNFRSF1A Mouse Monoclonal Antibody [Clone ID: htr9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	htr9
Applications:	FC, IHC, WB
Recommended Dilution:	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 ug/ml of htr-9 are required. htr 9 itself may have an agonistic effect in assays measuring cytotoxicity, fibroblast growth or IL-6 secretion. **Immunohistochemistry on Frozen Sections:** 2-5 µg/ml (1/80-1/200). **Immunohistochemistry on Paraffin Sections:** 20 µg/ml (1/20); pretreatment not necessary. ***Suggested Positive Control:*** Human tonsil. Has been described to work on**Western blot** and **Flow Cytometry** (Use 10 µl of neat antibody neat antibody to label 10e6 cells).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Partially purified preparation of TNF binding protein from HL-60 cells.

Specificity:	The antibody reacts with CD120a. **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 CD120a (and CD120b) can be detected in different areas where an overlapping is found between CD120b and IL-2 receptor expression. CD120b expression can be detected mainly in the T-cell area whereas CD120a 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 CD120a or CD120b. Investigations on pathological tissues show a CD120b expression on epitheloid cell granulomas and giant cells in sarcoidosis.
Formulation:	PBS, pH 7.2 State: Purified State: Lyophilized purified Ig fraction Stabilizer: 5 mg/ml BSA Preservative: 0.05% Kathon CG
Reconstitution Method:	Restore with 0.5 ml distilled water.
Concentration:	0.4 mg/ml (after reconstitution)
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	tumor necrosis factor receptor superfamily member 1A
Database Link:	Entrez Gene 7132 Human P19438

Background:

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 NFkB 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.
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.

Synonyms:

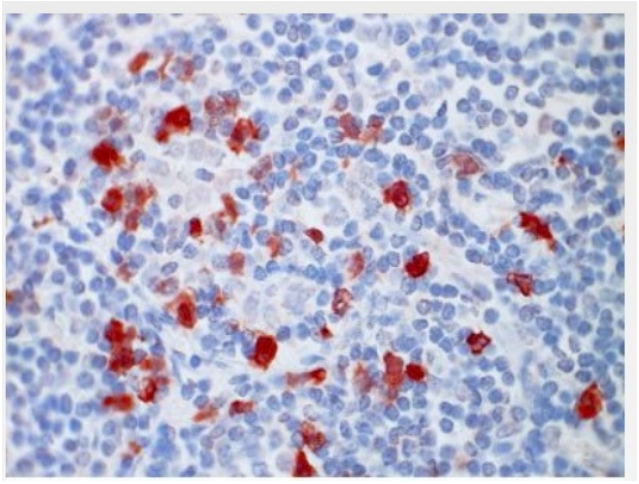
Tumor necrosis factor receptor 1, TNF-R1, TNF-RI, TNFR-I, p55, p60, Tnfrsf1a

Note:

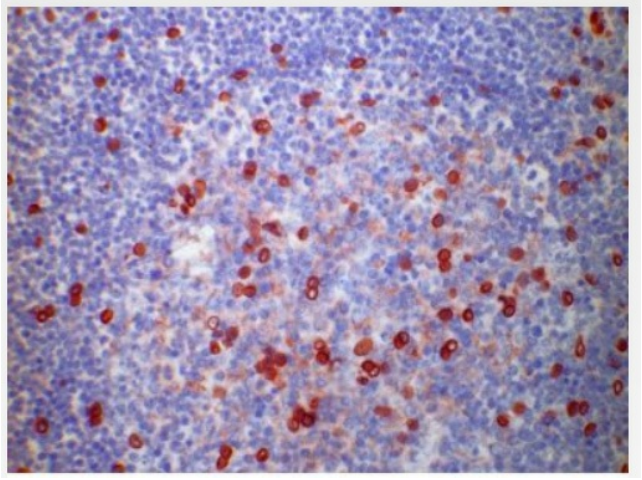
Protocol: **Protocol with frozen, ice-cold acetone-fixed sections:**
The whole procedure is performed at room temperature
1. Wash in PBS
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum

Protocol with formalin-fixed, paraffin-embedded sections:
The whole procedure is performed at room temperature
1. Deparaffinize and rehydrate tissue section
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum

Product images:



Human Tonsil, Frozen Section stained with CD120a antibody clone Utr9



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