

# **Product datasheet for BM4054B**

### OriGene Technologies, Inc.

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## TNFRSF1B Mouse Monoclonal Antibody [Clone ID: utr1]

### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: utr1

**Applications:** FC, IHC, WB

Recommended Dilution: Immunohistochemistry on Frozen Sections: 1 µg/ml (1/400).

**Immunohistochemistry on Paraffin Sections:** 10 µg/ml (1/40). Pretreatment not necessary.

**Recommended Positive Control:** Human tonsil.

Has also been described to work in FACS, Western Blots and Immunoprecipitation.

Reactivity: Human
Host: Mouse
Isotype: IgG1

Clonality: Monoclonal

**Immunogen:** Partially purified preparations of TNF binding proteins.



**Specificity:** The Monoclonal utr1 antibody reacts with CD120b.

This Monoclonal antibody utr 1 is useful for studying biological effects of TNF-receptor p75 in vitro where it inhibits the binding of radio labelled TNF to human cells expressing the p75 TNF receptor. In order to completely block TNF binding to the cell surface, 10  $\mu$ g/ml of utr 1 are required. utr 1 itself may have an agonistic effect in assays measuring cytotoxicity, fibroblast growth or IL-6 secretion.

**Antigen Distribution on Isolated Cells:** Isolated cells and cell lines U937, HL-60: Lymphocytes from peripheral blood show a faint staining. Mitogen stimulation of lymphocytes increases the intensity. Bone marrow cells are not stained with utr 1.

**Antigen Distribution on Tissue Sections:** Immunohistochemical staining in normal not diseased 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 (see ref 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 only in kidney some interstitial reticulum cells. 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 (see ref 7). Investigations on pathological tissues show a TNFR p75 expression on epitheloid cell granulomas and giant cells in sarcoidosis.

Formulation: PBS, pH 7.2

Label: Biotin

State: Lyophilized purified IgG fraction

Stabilizer: 5 mg/ml BSA

Preservative: 0.05% (v/v) Kathon CG

**Reconstitution Method:** Restore by adding 0.5 ml distilled water.

**Concentration:** 0.4 mg/ml (after reconstitution)

**Purification:** Affinity Chromatography

Conjugation: Biotin

**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 1B

Database Link: Entrez Gene 7133 Human

P20333



#### 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 membrane glycoproteins and they are from the family of cell surface molecules including nerve growth factor receptor, Fas/Apo1, CD30, OX40, and 4-1BB, which are characterized by cysteine rich motifs in the extracellular domain.

TNF Receptor II (p75, CD120b) is present on most cell types (including monocytes, endothelial cells, Langerhans cells, and macrophages) and is considered to play a role in cell stimulation by TNF alpha. TNF Receptor II molecule is shown to be responsible for stimulation of activated T lymphocytes by TNF alpha.

Synonyms:

Tumor necrosis factor receptor 2, p80 TNF-alpha receptor, TNFRSF1B, TNFBR, TNF-R2

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.

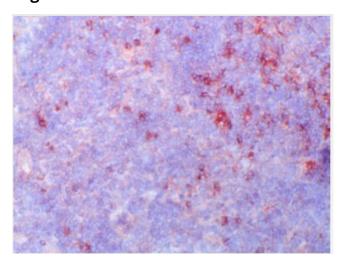
#### Protocol with formalin-fixed, paraffin-embedded sections:

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 Biotin conjugated CD120b / TNFR2 antibody (Clone utr1).