

# BIOTINYLATED MONOCLONAL ANTIBODY TO MOUSE TUMOR NECROSIS FACTOR RECEPTOR I (TNF-RI)

clone HM104



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<b>Catalog no</b>	HM1010 (lot number and expiry date are indicated on the label)										
<b>Description</b>	<p>The monoclonal antibody HM104 recognizes the extracellular part of the Tumor Necrosis Factor Receptor type I (TNF-RI) of the membrane-bound as well as the soluble receptor. TNF-RI (~55-60 kDa) is present on most cell types and is considered to play a prominent role in cell stimulation by TNF-alpha. TNF-alpha activates inflammatory responses, induces apoptosis, regulates cellular proliferation, and may even promote cancer progression. The effects of TNF-alpha are mediated by TNF-R1 and TNF-R2, which have both distinct and overlapping downstream signaling cascades. Induction of cytotoxicity and other functions are mediated largely via TNF-RI. TNF-R1 is equally well activated by both the 17 kDa soluble and 26 kDa membrane-bound form, whereas TNF-R2 is efficiently activated only by the membrane bound form of TNF-alpha.</p> <p>TNF-R1 signaling is initiated when trimeric TNF-alpha binds TNF-R1 receptors. Subsequent TNF-R1 trimerization promotes the recruitment of a proximal signaling complex composed of TNF Receptor Associated protein with a Death Domain (TRADD), Receptor Interacting Protein (RIP), cellular Inhibitor of Apoptosis Protein 1 (cIAP1), TNF Receptor Associated Factor 2 (TRAF2), and likely TRAF5. Studies with TNF-R1-deficient mice indicate that TNF-R1 mediates most of the proliferation, pro-inflammatory, and apoptosis-activating pathways.</p>										
<b>Aliases</b>	CD120a, Tumor necrosis factor receptor superfamily member 1A, p55/p60, TNFR-1										
<b>Species</b>	Rat IgG <sub>2a</sub>										
<b>Formulation</b>	0.5 ml (100 µg/ml) 0.2 µm filtered biotinylated antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02 % sodium azide.										
<b>Application</b>	The biotinylated monoclonal antibody HM104 can be used for immuno assay, and flow cytometry. Furthermore, the biotinylated monoclonal antibody HM104 is useful for immunohistology on frozen sections. Be aware that the reactivity of the antibody with soluble TNF-Receptor is inhibited by high concentrations of both mouse and human TNF-alpha.										
<b>Use</b>	For immunohistology, flow cytometry and Western blotting, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.										
<b>Storage and stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.										
<b>Precautions</b>	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hbt is not responsible for any patent infringements that might result with the use or derivation of this product.										
<b>References</b>	<ol style="list-style-type: none"><li>1. Bigini, P et al; Immunohistochemical localization of TNFα and its receptors in the rodent central nervous system. <i>Methods Mol Med</i> 2004, 98: 73</li><li>2. Mennini, T et al; Glial activation and TNFR-I upregulation precedes motor dysfunction in the spinal cord of <i>mnd</i> mice. <i>Cytokine</i> 2004, 25: 127</li><li>3. Ghezzi, P et al; Tumor necrosis factor as a pharmacological target. <i>Methods Mol Med</i> 2004, 98: 1</li></ol>										
<b>Also available</b>	<table><tr><td>HM1009</td><td>Monoclonal antibody against Mouse TNF-RI, clone HM104</td></tr><tr><td>HM1009F</td><td>FITC conjugated monoclonal antibody against Mouse TNF-RI, clone HM104</td></tr><tr><td>HM1011</td><td>Monoclonal antibody against Mouse TNF-RII, clone HM102</td></tr><tr><td>HP8002</td><td>Polyclonal antibody against Mouse TNF-RI</td></tr><tr><td>HP8003</td><td>Polyclonal antibody against Mouse TNF-RII</td></tr></table>	HM1009	Monoclonal antibody against Mouse TNF-RI, clone HM104	HM1009F	FITC conjugated monoclonal antibody against Mouse TNF-RI, clone HM104	HM1011	Monoclonal antibody against Mouse TNF-RII, clone HM102	HP8002	Polyclonal antibody against Mouse TNF-RI	HP8003	Polyclonal antibody against Mouse TNF-RII
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