

## Product datasheet for **CL044F**

### Tnfrsf1a Rat Monoclonal Antibody [Clone ID: HM104]

#### Product data:

|                       |  |
|-----------------------|--|
| Product Type:         | Primary Antibodies   |
| Clone Name:           | HM104  |
| Applications:         | ELISA, FC, IHC   |
| Recommended Dilution: | <b>Immunohistochemistry on Frozen Sections:</b> The typical starting working dilution is 1/50.<br><b>Flow Cytometry:</b> The typical starting working dilution is 1/50.<br><b>Immunoassays.</b><br><b>Immunoprecipitation.</b>   |
| Reactivity:           | Mouse  |
| Host:                 | Rat  |
| Isotype:              | IgG2a  |
| Clonality:            | Monoclonal   |
| Specificity:          | The monoclonal antibody <i>HM104</i> recognizes the extracellular part of the Tumor Necrosis Factor Receptor type I (TNF-RI) of the membrane-bound as well as the soluble receptor. recognizes the extracellular part of the Tumor Necrosis Factor Receptor type I (TNF-RI) of the membrane-bound as well as the soluble receptor.<br>The reactivity of the antibody with soluble TNF-Receptor is inhibited by high concentrations of both Mouse and Human TNF-alpha |
| Formulation:          | PBS<br>Label: FITC<br>State: Liquid 0.2 µm filtered Ig fraction<br>Stabilizer: 1% BSA<br>Preservative: 0.02% Sodium Azide  |
| Concentration:        | lot specific   |
| Purification:         | Protein G Chromatography   |
| Conjugation:          | FITC   |
| Storage:              | Store undiluted at 2-8°C.  |
| Stability:            | Shelf life: one year from despatch   |
| Gene Name:            | tumor necrosis factor receptor superfamily, member 1a  |



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**Database Link:** [Entrez Gene 21937 Mouse P25118](#)

**Background:** 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-RI and TNF-RII, which have both distinct and overlapping downstream signaling cascades. Induction of cytotoxicity and other functions are mediated largely via TNF-RI. TNF-RI is equally well activated by both the 17 kDa soluble and 26 kDa membrane-bound form, whereas TNF-RII is efficiently activated only by the membrane bound form of TNF-alpha. TNF-RI signaling is initiated when trimeric TNF-alpha binds TNF-RI receptors. Subsequent TNF-RI 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-RI-deficient mice indicate that TNF-RI mediates most of the proliferation, pro-inflammatory, and apoptosis-activating pathways.

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