

## Recombinant Rat TNF-alpha/TNFA Protein

**Catalog Number:** PKSR030457

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

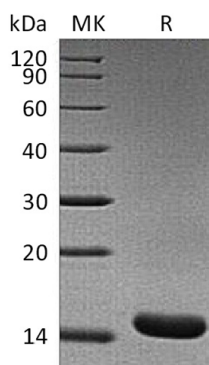
### Description

|                      |  |
|----------------------|--|
| <b>Species</b>       | Rat  |
| <b>Source</b>        | E.coli-derived Rat TNF-alpha/TNFA protein Leu80-Leu235 |
| <b>Calculated MW</b> | 17.4 kDa   |
| <b>Observed MW</b>   | 14 kDa   |
| <b>Accession</b>     | P16599   |
| <b>Bio-activity</b>  | Not validated for activity                             |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.  |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.  |
| <b>Formulation</b>    | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.   |
|                       | Please refer to the specific buffer information in the printed manual.   |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.   |

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Tumor necrosis factor alpha (TNF-alpha, TNFSF2) is the prototypic ligand of the TNF superfamily. Rat TNF-alpha consists of a 35 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 179 aa extracellular domain (ECD). Within the ECD, rat TNF-alpha shares 94% aa sequence identity with mouse. TNF-alpha is produced by a wide variety of immune, epithelial, endothelial, and tumor cells. TNF exists as a homotrimer and interacts with SPPL2B. TNF is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. TNF is a key cytokine in the development of several inflammatory disorders. It contributes to the development of type 2 diabetes through its effects on insulin resistance and fatty acid metabolism.

### For Research Use Only

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