

## Recombinant Rat TNF-alpha/TNFA Protein

**Catalog Number: PKSR030457**

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

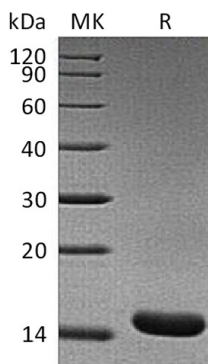
### Description

<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. 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