



# Recombinant Protein Technical Manual

**Recombinant Human CD136/MST1R Protein (His Tag)**  
RPES0780

## Product Data:

**Product SKU:** RPES0780

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** Q04912

## Protein Information:

**Molecular Mass:** 60 kDa

**AP Molecular Mass:** 70 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 98 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** 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.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** CD136;CDw136;PTK8;RON

## Immunogen Information:

**Sequence:** Met 1-Leu 571

## Background:

The tyrosine kinase receptor, macrophage-stimulating 1 receptor (MST1R), a c-met-related tyrosine kinase, also known as the Ron receptor or CD136, controls cell survival and motility programs related to invasive growth. As tyrosine kinase receptor comprised of an extra-cellular domain, MST1R protein contains the ligand binding pocket and an intracellular region where the kinase domain is located. MST1R signaling may be involved in the regulation of macrophage and T-lymphocyte activation in vivo during injury. This assessment of gene expression indicates the importance of genetic factors in contributing to lung injury, and points to strategies for intervention in the progression of inflammatory diseases. It had been shown that MST1R/CD136 plays a critical role in Ni-induced lung injury in mice. The overexpression of MSP, MT-SP1, and MST1R was a strong independent indicator of both metastasis and death in human breast cancer patients and significantly increased the accuracy of an existing gene expression signature for poor prognosis. Stimulation of MST1R leads to its transphosphorylation and the ultimate activation of numerous intracellular signaling pathways, such as the classical mitogen-activated protein kinase pathway, the phosphatidylinositol (PI)3-kinase pathway, and the JNK pathway.