



# Recombinant Protein Technical Manual

## Recombinant Human MAN1B1 Protein (His Tag)

RPES3201

### Product Data:

**Product SKU:** RPES3201

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** Q9UKM7

### Protein Information:

**Molecular Mass:** 68.7 kDa

**AP Molecular Mass:** 68 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

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

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of 50mM TrisHCL, 10mM reduced Glutathione, pH 8.0.

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

**Application:**

**Synonyms:** Endoplasmic Reticulum Mannosyl-Oligosaccharide 1;2-Alpha-Mannosidase; ER Alpha;2-Mannosidase; ER Mannosidase 1; ERMan1; Man9GlcNAc2-Specific-Processing Alpha-Mannosidase; Mannosidase Alpha Class 1B Member 1; MAN1B1

## Immunogen Information:

**Sequence:** Asp106-Ala699

## Background:

Endoplasmic Reticulum Mannosyl-Oligosaccharide 1,2- $\alpha$ -Mannosidase (MAN1B1) belongs to the glycosyl hydrolase 47 family. MAB1B1 is a single-pass type II membrane protein and widely expressed in many tissues. MAB1B1 is involved in glycoprotein quality control targeting of misfolded glycoproteins for degradation. MAB1B1 can be inhibited by both 1-deoxymannojirimycin (dMNJ) and kifunensine. Defects in MAN1B1 are the cause of mental retardation autosomal recessive type 15 (MRT15). Mental retardation is characterized by significantly below average general intellectual functioning, it is also associated with impairments in adaptive behavior and manifested during the developmental period.