Recombinant Protein Technical Manual

Recombinant Human OSTM1 Protein (His Tag)

RPES2500

Product Data:

Product SKU: RPES2500

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_054747.2

Protein Information:

Molecular Mass: 29.7 kDa

AP Molecular Mass: 40-50 kDa

Tag: C-His

Bio-activity:

Purity: > 97 % 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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: GIPN;GL;HSPC019;OPTB5

Immunogen Information:

Sequence: Met 1-Pro 284

Background:

Osteopetrosis-associated transmembrane protein 1 (OSTM1) is a Single-pass type I membrane protein. It is expressed in many hematopoietic cells of the myeloid and lymphoid B- and T-lineages. The analysis of OSTM1 association with CLCN7 demonstrated that OSTM1 requires CLCN7 to localize to lysosomes, whereas the formation of a CLCN7-OSTM1 complex is required to stabilize CLCN7. The researches found that OSTM1 plays a major role in myelopoiesis and lymphopoiesis and provided evidence of a crosstalk mechanism between hematopoietic cells for osteoclast activation. Thus, OSTM1 has a important role in osteoclast function and activation. The loss of function of OSTM1 results in deregulation of multiple hematopoietic lineages in addition to osteoclast lineage, OSTM1-defect patients display the most severe recessive osteopetrotic phenotype and die at early ages. Furthermore, it is suggested that OSTM1 has a primary role in neural development not related to lysosomal dysfunction. The canonical Wnt/beta-catenin signaling pathway may be a molecular basis for OSTM1 mutations and severe autosomal recessive osteopetrosis (ARO).