Recombinant Protein Technical Manual

Recombinant Mouse MEP1A/PPHA Protein (His Tag)(Active)

RPES3915

Product Data:

Product SKU: RPES3915

Size: 10µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_032611.2

Protein Information:

Molecular Mass:	69 kDa
AP Molecular Mass:	80-90 kDa
Tag:	C-His
Bio-activity:	Measured by its ability to cleave a fluorogenic peptide substrate, Mca-YVADAPK(Dnp)-OH, R&D Systems, Catalog # ES007. The specific activity is >400 pmoles/min/µg. (Activation description: The proenzyme needs to be activated by Trypsin for an activated form)
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg of the protein 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:	AI098089;AW107200;Mep;Mepa;Mep1

Immunogen Information:

Sequence: Met 1-Arg 615

Background:

Meprin A subunit alpha, also known as MEP1A, and Endopeptidase-2, is a single-pass type I membrane protein which belongs to the peptidase M12A family. MEP1A contains one EGF-like domain, one MAM domain, and one MATH domain. Meprins are unique plasma membrane and secreted metalloproteinases that are highly regulated at the transcriptional and post-translational levels. Meprin alpha and beta subunits are abundantly expressed in kidney and intestinal epithelial cells, are secreted into the urinary tract and intestinal lumen, and are found in leukocytes and cancer cells under certain conditions. Meprins are capable of proteolytically degrading extracellular matrix proteins, proteolytically processing bioactive proteins, and play a role in inflammatory processes. Meprin A and B are highly regulated, secreted and cell-surface homo- and hetero-oligomeric enzymes. Meprins are abundantly expressed in kidney and intestine. The multidomain alpha and beta subunits have high sequence identity. They have very different substrate specificities, oligomerization potentials and are differentially regulated. Meprin A appears to be an important therapeutic target and urinary excretion appears to be a potential biomarker of acute kidney injury (AKI).