Recombinant OCRL protein (His tag)

Catalog Number	537949
Synonyms	Inositol polyphosphate 5-phosphatase OCRL-1; OCRL-1; Lowe oculocerebrorenal syndrome protein; Phosphatidylinositol 3,4,5-triphosphate 5-phosphatase
Species	Human
Expression System	E. coli
Accession	Q01968
Molecular Weight	Predictes a molecular mass of 57.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 60 kDa band.

Product Information

Sequence Region	222-700
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 222-700 aa (Q01968) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant human Inositol polyphosphate 5-phosphatase OCRL (OCRL-1) fragment (residues 222-700), a highly purified protein ideal for studying phosphoinositide signaling pathways. This 479-amino acid fragment represents a stable, soluble unit optimized for structural and biochemical investigations. The full-length OCRL protein is a key phosphatase enzyme that catalyzes the hydrolysis of the 5-position phosphate from phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2) and phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3), with highest activity toward PtdIns(4,5)P2. It also hydrolyzes soluble inositol phosphates including inositol 1,4,5-trisphosphate and inositol 1,3,4,5-tetrakisphosphate. OCRL regulates endosomal trafficking through modulation of phosphoinositide pools, participates in primary cilia assembly, and controls phagocytosis by hydrolyzing PtdIns(4,5)P2 to promote phagosome closure. The protein localizes to multiple intracellular compartments including endosomes, phagosomes, lysosomes, Golgi apparatus, and cilia, reflecting its diverse roles in cellular signaling and membrane dynamics.