Recombinant VPP3 protein (His tag)

Catalog Number	547267
Synonyms	V-ATPase 116 kDa subunit a 3; Osteoclastic proton pump 116 kDa subunit; OC-116 kDa; OC116; T-cell immune regulator 1; T-cell immune response cDNA7 protein; TIRC7; Vacuolar proton translocating ATPase 116 kDa subunit a isoform 3
Species	Human
Expression System	E. coli
Accession	Q13488
Molecular Weight	Predictes a molecular mass of 26.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	167-385
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 167-385 aa (Q13488) 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	This recombinant protein product features a stable and soluble fragment (residues 167-385) of the V-type proton ATPase 116 kDa subunit a 3, also known as TCIRG1. Derived from Homo sapiens, this fragment is optimized for structural and biochemical studies, offering researchers a reliable tool to investigate the protein's role in cellular acidification and T-cell activation mechanisms. The full-length V-type proton ATPase 116 kDa subunit a 3 is a key component of the V0 complex within the vacuolar (H+)-ATPase (V-ATPase) enzyme. This multisubunit complex consists of a peripheral ATP-hydrolyzing V1 complex and a membrane-integral V0 complex that translocates protons. V-ATPase is essential for acidifying and maintaining pH in intracellular compartments and, in certain cell types, localizes to the plasma membrane to acidify the extracellular environment. The protein is implicated in T-cell activation, highlighting its significance in immune regulation. As a multi-pass membrane protein, it is embedded within cellular membranes, underscoring its integral role in proton transport and cellular homeostasis.