Recombinant SPP2A protein (His tag)

Catalog Number	547803
Synonyms	SPP-like 2A; SPPL2a; Intramembrane protease 3; IMP-3; Presenilin-like protein 2
Species	Human
Expression System	E. coli
Accession	Q8TCT8
Molecular Weight	Predictes a molecular mass of 17.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	26-172
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 26-172 aa (Q8TCT8) 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 Signal peptide peptidase-like 2A (SPPL2a) fragment (aa 26-172) is a high-purity protein designed for studying intramembrane proteolysis and immune regulation. This fragment fully encompasses the PA domain, making it an ideal tool for investigating specific domain functions in signal peptide processing and immune signaling pathways. Signal peptide peptidase-like 2A (SPPL2a) is an intramembrane-cleaving aspartic protease (I-CLiP) that cleaves type II membrane signal peptides within the hydrophobic plane of the membrane. This enzyme plays crucial roles in FASLG, ITM2B, and TNF processing, facilitating the release of intracellular domains for nuclear signaling. SPPL2a is essential for degradation of the invariant chain CD74 in antigen-presenting cells and regulates both innate and adaptive immunity. The protein also processes viral envelope glycoproteins independently of prior ectodomain shedding. SPPL2a localizes to late endosome and lysosome membranes as a multi-pass membrane protein and colocalizes with palmitoylated and myristoylated proteins at the plasma membrane, indicating its importance in membrane-associated proteolytic activities and immune system function.