Recombinant OBI1 protein (His tag)

Catalog Number	540490
Synonyms	OBI1; RING finger protein 219
Species	Human
Expression System	E. coli
Accession	Q5W0B1
Molecular Weight	Predictes a molecular mass of 32.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	1-269
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-269 aa (Q5W0B1) 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 OBI1 (ORC ubiquitin ligase 1) fragment (residues 1-269), a stable and soluble unit derived from human ORC ubiquitin ligase 1, essential for DNA replication origin activation. This fragment is optimized for structural and biochemical studies, enabling researchers to investigate mechanisms of origin selection and ubiquitin ligase activity in S-phase progression. ORC ubiquitin ligase 1 (OBI1), encoded by the OBI1 gene in Homo sapiens, is an E3 ubiquitin ligase (EC 2.3.2.27) critical for DNA replication origin activation during S phase. It functions as a replication origin selector, determining which origins are fired by catalyzing multi-mono-ubiquitination of chromatin-bound ORC3 and ORC5 subunits. The protein localizes to chromosomes in a cell cycle-regulated manner, associating with chromatin from G1 phase and partially releasing from mid S-phase, while being absent from mitotic chromosomes. This regulated chromatin association underscores its role in coordinating replication initiation with cell cycle progression.