Recombinant BAP1 protein (His tag)

Catalog Number	543302
Synonyms	BRCA1-associated protein 1; Cerebral protein 6
Species	Human
Expression System	E. coli
Accession	Q92560
Molecular Weight	Predictes a molecular mass of 31.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	1-266
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-266 aa (Q92560) 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 Ubiquitin carboxyl-terminal hydrolase BAP1 (EC 3.4.19.12) fragment (amino acids 1-266) is a high-purity protein designed for studying deubiquitinating enzyme activity. This fragment fully encompasses the UCH catalytic domain, making it an ideal tool for investigating histone H2A deubiquitination, chromatin regulation, and related epigenetic mechanisms in research applications. Ubiquitin carboxyl-terminal hydrolase BAP1 (BRCA1-associated protein 1) is a crucial deubiquitinating enzyme that plays a key role in chromatin regulation by specifically mediating deubiquitination of histone H2A monoubiquitinated at 'Lys-120' (H2AK119ub1). As the catalytic component of the polycomb repressive deubiquitinase (PR-DUB) complex, BAP1 acts as an epigenetic regulator of gene expression, functioning as a transcriptional coactivator that affects genes involved in development, cell communication, signaling, proliferation, and viability. The enzyme antagonizes PRC1-mediated H2AK119ub1 monoubiquitination and is recruited to specific gene-regulatory regions by YY1. BAP1 also mediates deubiquitination of HCFC1 with specificity toward 'Lys-48'-linked polyubiquitin chains and interferes with BRCA1 and BARD1 heterodimer activity. The protein localizes to both the nucleus and cytoplasm, with predominant nuclear localization, and binds to chromatin. Nuclear localization is mediated by the importin and transportin systems, with TNPO1/transportin-1 serving as the major mediator.