Recombinant BABA2 protein (His tag)

Catalog Number	546095
Synonyms	BRCA1-A complex subunit BRE; BRCA1/BRCA2-containing complex subunit 45; Brain and reproductive organ-expressed protein
Species	Human
Expression System	E. coli
Accession	Q9NXR7
Molecular Weight	Predictes a molecular mass of 45.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	1-383
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 1-383 aa (Q9NXR7) 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	Introducing the recombinant BRCA1-A complex member 2 (BABAM2) fragment (amino acids 1-383), a highly stable and soluble protein unit ideal for investigating DNA damage response mechanisms, ubiquitin signaling, and mitotic regulation in advanced cellular and biochemical studies. BRCA1-A complex member 2, encoded by the BABAM2 gene in Homo sapiens, is a critical component of the BRCA1-A and BRISC multiprotein complexes. It functions as an adapter that maintains complex integrity and modulates E3 ubiquitin ligase activity, specifically recognizing 'Lys-63'-linked ubiquitinated histones H2A and H2AX at DNA double-strand break sites to recruit the BRCA1-BARD1 heterodimer for DNA repair. Additionally, it contributes to deubiquitinase activity within the BRISC complex, cleaving 'Lys-63'-linked ubiquitin in substrates such as NUMA1 for proper mitotic spindle assembly and IFNAR1 for interferon receptor stability and signaling. The protein localizes to both the cytoplasm and nucleus, accumulating at DNA lesion sites, and may play roles in apoptosis regulation and TNF-alpha signaling, underscoring its importance in genomic stability, immune response, and cellular homeostasis.