Recombinant BARD1 protein (His tag)

Catalog Number	541108
Synonyms	BARD-1; RING-type E3 ubiquitin transferase BARD1
Species	Human
Expression System	E. coli
Accession	Q99728
Molecular Weight	Predictes a molecular mass of 41.70 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	423-777
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 423-777 aa (Q99728) 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 specific fragment of the BRCA1-associated RING domain protein 1 (BARD-1), encompassing amino acids 423-777. It includes the BRCT 1 and BRCT 2 domains, making it an ideal tool for researchers studying DNA damage response, ubiquitination mechanisms, and genomic stability in a focused, domain-specific context. BARD1 is a crucial E3 ubiquitin-protein ligase that forms a heterodimer with BRCA1 to mediate 'Lys-6'-linked polyubiquitin chains, playing a central role in DNA damage repair, cell cycle control, and maintaining genomic stability. It also modulates mRNA processing and RNA polymerase II stability. The full-length protein is primarily localized in the nucleus, where it accumulates in subnuclear foci during S phase and translocates to sites of DNA damage, such as double-strand breaks, as part of the BRCA1-A complex. This underscores its importance in cellular pathways critical for tumor suppression and response to genomic stress.