Recombinant BRCC3 protein (His tag)

Catalog Number	542341
Synonyms	BRCA1-A complex subunit BRCC36; BRCA1/BRCA2-containing complex subunit 3; BRCA1/BRCA2-containing complex subunit 36; BRISC complex subunit BRCC36
Species	Human
Expression System	E. coli
Accession	P46736
Molecular Weight	Predictes a molecular mass of 37.60 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	2-316
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 2-316 aa (P46736) 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 BRCC3 (Lys-63-specific deubiquitinase BRCC36) fragment (residues 2-316) from Homo sapiens, encompassing the full MPN domain. This high-purity protein is ideal for investigating Lys-63-linked deubiquitination mechanisms, DNA damage response pathways, and inflammasome regulation in biochemical and cellular assays. BRCC36, encoded by the BRCC3 gene, is a metalloprotease that specifically cleaves Lys-63-linked polyubiquitin chains while showing no activity toward Lys-48-linked chains. It functions in two key complexes: the BRCA1-A complex, where it localizes to DNA double-strand break sites, deubiquitinates histones H2A and H2AX, and recruits BRCA1-BARD1 to promote DNA repair; and the BRISC complex, where it regulates interferon signaling by stabilizing IFNAR1, controls mitotic spindle assembly via NUMA1 deubiquitination, and modulates NLRP3 inflammasome activation. The protein localizes to the nucleus, cytoplasm, and spindle poles, with its cytoplasmic retention influenced by ABRAXAS2. This recombinant fragment retains the essential MPN domain, enabling focused studies on its deubiquitination activity and roles in cellular stress responses.