# Recombinant BFAR protein (His tag)

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| **Catalog Number** | 548411 |
| **Synonyms** | RING finger protein 47 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q9NZS9 |
| **Molecular Weight** | Predictes a molecular mass of 21.76 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band. |

## Product Information

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| **Sequence Region** | 162-331 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >88%, 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 162-331 aa (Q9NZS9) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Bifunctional Apoptosis Regulator (BFAR) Fragment (aa 162-331) - A high-purity human protein fragment specifically designed to encompass the SAM functional domain (aa 182-249). This product provides researchers with an ideal tool for studying domain-specific functions of this key E3 ubiquitin ligase involved in apoptosis regulation and cellular stress response pathways.<br>The full-length Bifunctional Apoptosis Regulator (BFAR), also known as RING finger protein 47, is a membrane-bound E3 ubiquitin ligase that plays critical roles in cellular regulation. This multi-pass membrane protein localizes to the endoplasmic reticulum membrane and functions as a key regulator of apoptosis, demonstrating anti-apoptotic activity through both death-receptor and mitochondrial pathways. BFAR contributes to endoplasmic reticulum stress response by controlling IRE1/ERN1 signaling through proteasomal degradation of BAX inhibitor 1/TMBIM6. Additionally, it promotes TGF-beta signaling activation via 'Lys-63'-linked ubiquitination of TGFBR1 and negatively regulates NF-kappa-B and JNK-related signaling pathways in conjunction with NGFR. Recent research also indicates its role in lipid metabolism through promoting proteasomal degradation of PNPLA3. The provided fragment (aa 162-331) specifically contains the SAM domain, enabling focused investigation of this functional region's contributions to BFAR's diverse regulatory activities. |