Recombinant BAF protein (His tag)

Catalog Number	544176
Synonyms	Breakpoint cluster region protein 1
Species	Human
Expression System	E. coli
Accession	O75531
Molecular Weight	Predictes a molecular mass of 11.71 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	1-89
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 1-89 aa (O75531) 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 Barrier-to-autointegration factor (BANF1) fragment (residues 1-89) is a high-purity protein that encompasses the complete HhH functional domain. This product serves as an essential tool for investigating chromatin organization, nuclear reassembly, DNA damage response, and intrinsic immunity mechanisms, providing researchers with a targeted reagent for domain-specific functional studies. Barrier-to-autointegration factor (BANF1) is a non-specific DNA-binding protein critical for multiple cellular processes including mitotic nuclear reassembly, chromatin organization, DNA damage response, gene expression, and intrinsic immunity against foreign DNA. It contains two double-stranded DNA-binding sites that promote DNA cross-bridging and plays a key role in nuclear membrane reformation at the end of mitosis. The protein also functions as a negative regulator of innate immune activation by competing with CGAS for DNA-binding, preventing autoinflammatory responses. During viral infections, BANF1 exhibits antiviral activity by blocking viral DNA replication and is exploited by retroviruses to promote integration into host chromosomes. The protein localizes to the nucleus, chromosomes, nuclear envelope, and cytoplasm, with phosphorylation status affecting its subcellular distribution. The provided fragment (residues 1-89) contains the complete HhH domain, enabling focused investigation of these critical biological functions.