# Recombinant PHF10 protein (His tag)

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| **Catalog Number** | 547823 |
| **Synonyms** | BRG1-associated factor 45a; BAF45a; XAP135 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q8WUB8 |
| **Molecular Weight** | Predictes a molecular mass of 26.55 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band. |

## Product Information

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| **Sequence Region** | 68-275 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, 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 68-275 aa (Q8WUB8) 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 Human PHD finger protein 10 (PHF10) fragment (aa 68-275) is a high-purity, stable protein designed for chromatin remodeling and neural development research. This 208-amino acid fragment was computationally optimized for solubility and structural integrity, making it ideal for biochemical assays, structural studies, and functional investigations into neural progenitor proliferation.<br>PHD finger protein 10 (PHF10), also known as BAF45a or XAP135, is a key component of the neural progenitor-specific chromatin remodeling complex (npBAF), which regulates transcription by modifying chromatin structure. It plays a critical role in the proliferation of neural progenitors and undergoes a subunit switch during neural development—replaced by homologs like DPF1/BAF45B or DPF3/BAF45C as neurons differentiate—highlighting its importance in the transition from neural stem cells to post-mitotic neurons. The npBAF complex, including PHF10, is essential for the self-renewal of multipotent neural stem cells and works alongside CREST to regulate genes involved in dendrite growth. PHF10 is localized to the nucleus, underscoring its direct involvement in nuclear processes. The provided fragment (aa 68-275) represents a stable, soluble region selected for experimental use, enabling focused studies on PHF10's functional domains without the full-length protein's complexity. |