# Recombinant KAP0 protein (His tag)

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| **Catalog Number** | 546745 |
| **Synonyms** | Tissue-specific extinguisher 1; TSE1 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P10644 |
| **Molecular Weight** | Predictes a molecular mass of 44.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band. |

## Product Information

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| **Sequence Region** | 1-381 |
| **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 1-381 aa (P10644) 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** | This product is a recombinant protein fragment of human cAMP-dependent protein kinase type I-alpha regulatory subunit (TSE1), encompassing amino acids 1-381. It represents a stable and soluble unit ideal for structural studies, biochemical assays, and investigating cAMP signaling mechanisms in cellular pathways.<br>The full-length cAMP-dependent protein kinase type I-alpha regulatory subunit, encoded by the PRKAR1A gene, functions as a regulatory component of cAMP-dependent protein kinases, playing a critical role in intracellular cAMP signaling. According to functional annotations, it is involved in mediating cellular responses to cAMP, with implications in various physiological processes. The protein is localized to the cell membrane, as supported by experimental evidence, highlighting its importance in membrane-associated signaling events. |