# Recombinant SKA1 protein (His tag)

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| **Catalog Number** | 538673 |
| **Synonyms** | Spindle and kinetochore-associated protein 1 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q96BD8 |
| **Molecular Weight** | Predictes a molecular mass of 16.14 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band. |

## Product Information

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| **Sequence Region** | 133-255 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >87%, 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 133-255 aa (Q96BD8) 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 SKA complex subunit 1 (SKA1) fragment (aa 133-255) - a highly stable and soluble protein fragment ideal for structural and biochemical studies of kinetochore-microtubule interactions during chromosome segregation.<br>SKA complex subunit 1 (Spindle and kinetochore-associated protein 1) is a crucial component of the SKA complex, a microtubule plus end-binding complex of the outer kinetochore that stabilizes spindle microtubule-kinetochore attachments. This protein plays essential roles in chromosome congression by promoting alignment of chromosomes at the mitotic spindle equator and assists in suppression of the spindle assembly checkpoint. The SKA complex stabilizes microtubules together with MAPRE1 and facilitates end-on attachment of the NDC80 complex to depolymerizing spindle microtubules, enabling kinetochores to withstand microtubule pulling forces. It localizes to bioriented kinetochores and spindle microtubules during metaphase, associates with dynamic microtubule plus-ends, and can track both depolymerizing and elongating microtubules. Additionally, the complex recruits protein phosphatase 1 (PP1) to the kinetochore to oppose spindle assembly checkpoint signaling and promote the onset of anaphase. The selected fragment (aa 133-255) represents a stable structural unit that mediates critical interactions with microtubules, making it valuable for investigating the molecular mechanisms of chromosome segregation and mitotic regulation. |