

## Recombinant RPS6KA4/RSK4 protein

**Catalog No:** 81399, 81699

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.3 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant RPS6KA4 / RSK4 protein is supplied in 25 mM HEPESNaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

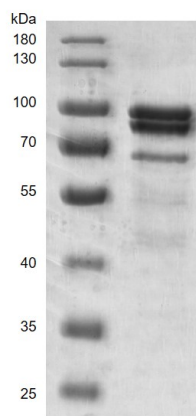
**Background:** RPS6KA4 (Ribosomal Protein S6 Kinase A4) is a serine/threonine-protein kinase that is required for the mitogen or stress-induced phosphorylation of the transcription factors CREB1 and ATF1 and for the regulation of the transcription factor RELA, and that contributes to gene activation by histone phosphorylation and functions in the regulation of inflammatory genes. RPS6KA4 phosphorylates CREB1 and ATF1 in response to mitogenic or stress stimuli such as UV-C irradiation, epidermal growth factor (EGF) and anisomycin and phosphorylates 'Ser-10' of histone H3 in response to mitogenics, stress stimuli and EGF, which results in the transcriptional activation of several immediate early genes, including proto-oncogenes c-fos/FOS and c-jun/JUN.

**Protein Details:** Recombinant RPS6KA4 / RSK4 protein was expressed in baculovirus expression system as the full length protein (accession number NP\_003933.1) with a N-terminal FLAG tag. The molecular weight of the protein is 86.9 kDa.

**Application Notes:** This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

#### RPS6KA4 / RSK4



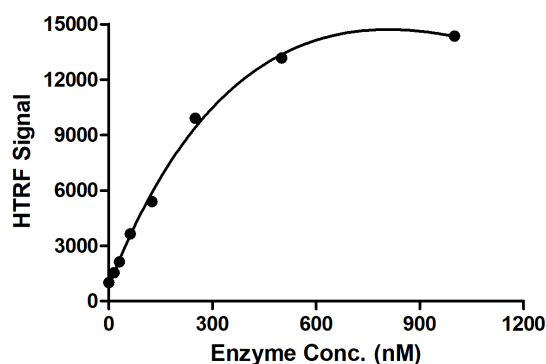
#### Recombinant PRDM4 protein

10% SDS-PAGE Coomassie staining

MW: 86.9 kDa

Purity:  $\geq 50\%$

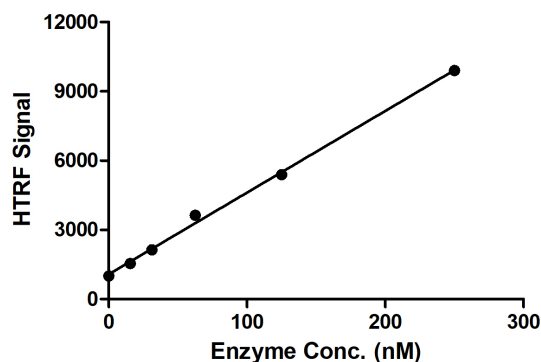
#### RPS6KA4 / RSK4 Titration



#### HTRF assay for RPS6KA4 / RSK4 activity

1  $\mu$ M STK S3 substrate was incubated with different concentrations of RPS6KA4 / RSK4 protein in 10  $\mu$ l reaction system containing 1 $\times$ Enzymatic Buffer, 10 mM MgCl<sub>2</sub>, 1 mM DTT, and 100  $\mu$ M ATP for 1 hour. The detection reagents were added and incubated with the reactions for 30 min. All operations and reactions were performed at room temperature, and HTRF assay was used to detect the enzymatic activity.

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