

Recombinant RPS6KA3/MAPKAPK1B protein

Catalog No: 81363, 81663

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.3 µg/µl

Source: Human

Buffer Contents: Recombinant RPS6KA3 / MAPKAPK1B protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

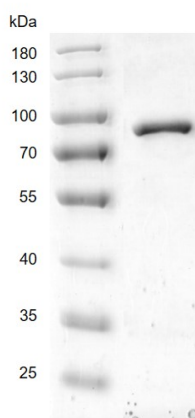
Background: RPS6KA3 also known as MAPKAPK1B is a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains 2 non-identical kinase catalytic domains and phosphorylates various substrates, including members of the mitogen-activated kinase (MAPK) signaling pathway. It acts downstream of ERK (MAPK1/ERK2 and MAPK3/ERK1) signaling and mediates mitogenic and stress-induced activation of the transcription factors CREB1, ETV1/ER81 and NR4A1/NUR77. RPS6KA3 also regulates translation through RPS6 and EIF4B phosphorylation, and mediates cellular proliferation, survival, and differentiation by modulating mTOR signaling and repressing pro-apoptotic function of BAD and DAPK1. Diseases associated with RPS6KA3 include Coffin-Lowry Syndrome and Symptomatic Form Of Coffin-Lowry Syndrome In Female Carriers. Among its related pathways are Cellular Senescence (REACTOME) and Activated TLR4 signaling.

Protein Details: Recombinant RPS6KA3 / MAPKAPK1B protein was expressed in a baculovirus expression system as the full length protein (accession number NP_004577.1) with a N-terminal FLAG tag. The molecular weight of the protein is 84.7 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 guaranteed for 6 months from date of arrival.

RPS6KA3 / MAPKAPK1B



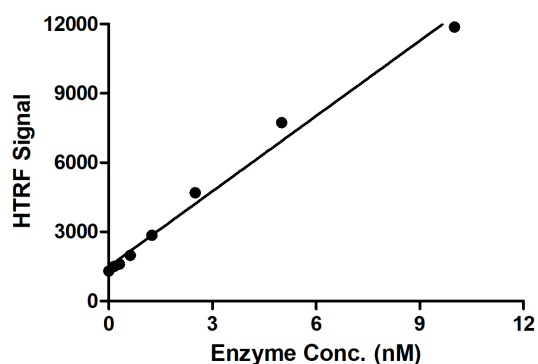
Recombinant RPS6KA3 / MAPKAPK1B protein

10% SDS-PAGE with Coomassie blue staining

MW: 84.7 kDa

Purity: >95%

RPS6KA3/MAPKAPK1B Titration



HTRF assay for RPS6KA3 / MAPKAPK1B activity

1 μ M STK S1 substrate was incubated with different concentrations of RPS6KA3 / MAPKAPK1B protein in a 10 μ l reaction system containing 1 \times Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT, and 100 μ M ATP for 1 hour. Then 10 μ l detection reagents containing STK antibody (1:2) and SA-XL665 (1:100) diluted with 1 \times Detection Buffer were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.