

Recombinant MRCKa / CDC42BPA (1-473) protein

Catalog No: 81396, 81696

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.5 µg/µl

Source: Human

Buffer Contents: Recombinant MRCKa / CDC42BPA (1-473) protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

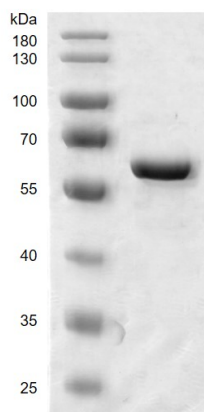
Background: **CDC42BPA** (CDC42 Binding Protein Kinase Alpha) is a serine/threonine-protein kinase which is an important downstream effector of CDC42 and plays a role in the regulation of cytoskeleton reorganization and cell migration. This protein regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2. In concert with MYO18A and LURAP1, **CDC42BPA** is involved in modulating lamellar actomyosin retrograde flow that is crucial to cell protrusion and migration. In concert with FAM89B/LRAP25 CDC42BPA mediates the targeting of LIMK1 to the lamellipodium resulting in its activation and subsequent phosphorylation of CFL1 which is important for lamellipodial F-actin regulation.

Protein Details: Recombinant MRCKa / CDC42BPA (1-473) protein that includes amino acids 1-473 of human MRCKa protein (accession number NP_001352948.1) was expressed in a baculovirus expression system, and contains an N-terminal FLAG tag. The molecular weight of the protein is 55.7 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 for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

MRCKa / CDC42BPA (1-473)



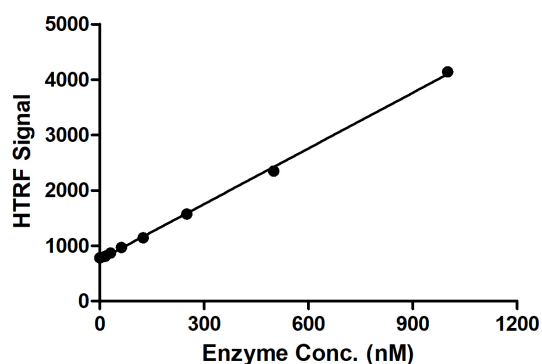
Recombinant MRCKa / CDC42BPA (1-473) protein

10% SDS-PAGE Coomassie staining

MW: 55.7 kDa

Purity: $\geq 95\%$

MRCKa(1-473) Titration



HTRF for MRCKa / CDC42BPA (1-473) activity

1 μ M STK S3 substrate was incubated with different concentrations of MRCKa / CDC42BPA (1-473) protein in 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 anti-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.