

Active Recombinant Human WAS protein VCA domain, GST-tagged

Cat. No. WAS-502H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human WAS protein VCA domain(aa 392-505), expressed in a bacterial expression system as a GST-tagged fusion protein

Species

Human

Source

Bacteria

ProteinLength

aa 392-505

Description

The Wiskott-Aldrich syndrome (WAS) family of proteins share similar domain structure, and are involved in transduction of signals from receptors on the cell surface to the actin cytoskeleton. The presence of a number of different motifs suggests that they are regulated by a number of different stimuli, and interact with multiple proteins. Recent studies have demonstrated that these proteins, directly or indirectly, associate with the small GTPase, Cdc42, known to regulate formation of actin filaments, and the cytoskeletal organizing complex, Arp2/3. Wiskott-Aldrich syndrome is a rare, inherited, X-linked, recessive disease characterized by immune dysregulation and microthrombocytopenia, and is caused by mutations in the WAS gene. The WAS gene product is a cytoplasmic protein, expressed exclusively in hematopoietic cells, which show signalling and cytoskeletal abnormalities in WAS patients. A transcript variant arising as a result of alternative promoter usage, and containing a different 5' UTR sequence, has been described, however, its full-length nature is not known.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Form	Lyophilized powder
Bio-activity	Recombinant Human WASP protein VCA domain was tested in an actin polymerization assay. In conjunction with Arp2/3 it was shown to stimulate actin polymerization 20-fold compared to the control without recombinant human WASP protein VCA domain. This indicates VCA domain specificity for stimulating the actin nucleating activity of Arp2/3.
Molecular Mass	43 kDa.
Purity	> 90% as determined by SDS-PAGE.
Usage	Stimulating Arp2/3 Complex activity. Isolating Arp2/3 Complex from cell or tissue extract.
Stability	it is stable for 6 months.
Storage	Store lyophilized product desiccated (<10% humidity) at 4°C.
Reconstitution	Resuspend the protein complex to 1 mg/ml with 500 µl of cold MilliQ water. Avoid multiple freeze-thaw cycles. Further dilution of VCA-GST should be made in the following buffer: 20 mM Tris pH 7.5, 20 mM NaCl.

GENE INFORMATION

Gene Name	WAS WASP actin nucleation promoting factor [Homo sapiens (human)]
Official Symbol	WAS
Synonyms	WAS; WASP actin nucleation promoting factor; THC; IMD2; SCNX; THC1; WASP;

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WASPA; wiskott-Aldrich syndrome protein; eczema-thrombocytopenia;
thrombocytopenia 1 (X-linked)

Gene ID 7454

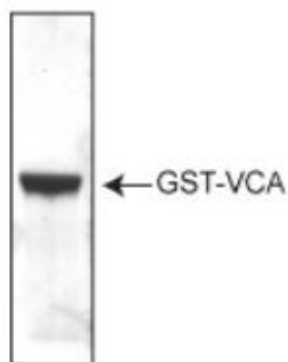
mRNA Refseq NM_000377

Protein Refseq NP_000368

MIM 300392

UniProt ID P42768

SDS-PAGE

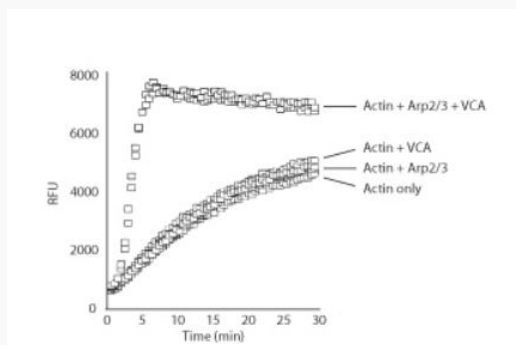


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Actin polymerization



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