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WAS Antibody(Center) Blocking peptide
Synthetic peptide
Catalog # BP19544c

Specification

WAS Antibody(Center) Blocking peptide - Product Information

Primary Accession P42768

WAS Antibody(Center) Blocking peptide - Additional Information

Gene ID 7454

Other Names
Wiskott-Aldrich syndrome protein, WASp, WAS, IMD2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

WAS Antibody(Center) Blocking peptide - Protein Information

Name WAS

Synonyms IMD2

Function
Effector protein for Rho-type GTPases that regulates actin filament reorganization via its interaction with the Arp2/3 complex (PubMed:12235133, PubMed:12769847, PubMed:16275905). Important for efficient actin polymerization (PubMed:8625410, PubMed:12235133, PubMed:16275905). Possible regulator of lymphocyte and platelet function (PubMed:9405671). Mediates actin filament reorganization and the formation of actin pedestals upon infection by pathogenic bacteria (PubMed:18650809). In addition to its role in the cytoplasmic cytoskeleton, also promotes actin polymerization in the nucleus, thereby regulating gene transcription and repair of damaged DNA (PubMed:20574068). Promotes homologous recombination (HR) repair in response to

DNA damage by promoting nuclear actin polymerization, leading to drive motility of double-strand breaks (DSBs) (PubMed:29925947).

Cellular Location
Cytoplasm, cytoskeleton. Nucleus

Tissue Location
Expressed predominantly in the thymus. Also found, to a much lesser extent, in the spleen.

WAS Antibody(Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

WAS Antibody(Center) Blocking peptide - Images

WAS Antibody(Center) Blocking peptide - Background

The Wiskott-Aldrich syndrome (WAS) family of proteinsshare similar domain structure, and are involved in transduction ofsignals from receptors on the cell surface to the actincytoskeleton. The presence of a number of different motifssuggests that they are regulated by a number of different stimuli,and interact with multiple proteins. Recent studies havedemonstrated that these proteins, directly or indirectly, associatewith the small GTPase, Cdc42, known to regulate formation of actinfilaments, and the cytoskeletal organizing complex, Arp2/3.Wiskott-Aldrich syndrome is a rare, inherited, X-linked, recessivedisease characterized by immune dysregulation andmicrothrombocytopenia, and is caused by mutations in the WAS gene.The WAS gene product is a cytoplasmic protein, expressedexclusively in hematopoietic cells, which show signalling andcytoskeletal abnormalities in WAS patients. A transcript variantarising as a result of alternative promoter usage, and containing adifferent 5' UTR sequence, has been described, however, itsfull-length nature is not known.

WAS Antibody(Center) Blocking peptide - References

Burns, S.O., et al. Blood 115(26):5355-5365(2010)Taylor, M.D., et al. Sci Transl Med 2 (37), 37RA44 (2010) :Rajmohan, R., et al. FEMS Yeast Res. 9(8):1226-1235(2009)Dovas, A., et al. J. Cell. Sci. 122 (PT 21), 3873-3882 (2009) :Ameratunga, R., et al. N. Z. Med. J. 122(1304):46-53(2009)