# Recombinant WASF1 protein (His tag)

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| **Catalog Number** | 543301 |
| **Synonyms** | Protein WAVE-1; Verprolin homology domain-containing protein 1; Wiskott-Aldrich syndrome protein family member 1; WASP family protein member 1 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q92558 |
| **Molecular Weight** | Predictes a molecular mass of 26.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band. |

## Product Information

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| **Sequence Region** | 1-209 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 1-209 aa (Q92558) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Introducing the recombinant human Actin-binding protein WASF1 (WAVE-1) fragment (residues 1-209), a highly stable and soluble protein unit ideal for investigating actin cytoskeleton regulation and signal transduction pathways. This fragment supports structural studies and biochemical assays, offering researchers a reliable tool to explore WASF1's role in cellular dynamics.<br>Actin-binding protein WASF1 (WAVE-1) is a key downstream effector that transmits signals from tyrosine kinase receptors and small GTPases to the actin cytoskeleton, promoting actin filament formation and regulating processes such as lamellipodia development. It functions as part of the WAVE complex, which interacts with the Arp2/3 complex to reorganize actin filaments and is involved in mitochondrial dynamics and BDNF-NTRK2 endocytic trafficking. Located in the cytoplasm, cytoskeleton, synapses, and focal adhesions, WASF1 concentrates in Rac-regulated membrane-ruffling areas and may partially translocate to focal adhesion sites via interactions with proteins like SORBS2. In neurons, it colocalizes with activated NTRK2 in endocytic compartments, underscoring its importance in cellular structure and signaling. |