Recombinant DAP1 protein (His tag)

Catalog Number	542388
Synonyms	DAP-1
Species	Human
Expression System	E. coli
Accession	P51397
Molecular Weight	Predictes a molecular mass of 12.69 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	2-102
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 2-102 aa (P51397) were fused with 6His tag.

Storage & Handling

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. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Death-associated protein 1 (DAP-1) fragment (residues 2-102) is a high-purity, soluble protein designed for structural and functional studies. This fragment represents a stable domain critical for ribosome hibernation and autophagy regulation, offering researchers a reliable tool for investigating cellular stress responses and translational control mechanisms. Death-associated protein 1 (DAP-1) is a human ribosome-binding protein that plays a key role in ribosome hibernation, a process where ribosomes are stabilized in an inactive state to prevent degradation. It functions by associating with eIF5a at the ribosome's polypeptide exit tunnel to inhibit mRNA translation, particularly during oocyte maturation where ribosomes are stored translationally repressed. DAP-1 also acts as a negative regulator of autophagy and mediates interferon-gamma-induced cell death, highlighting its importance in cellular homeostasis and programmed cell death pathways. The provided fragment (residues 2-102) encompasses a computationally selected stable domain, enabling focused analysis of these critical functions.