Recombinant S10A4 protein (His tag)

Catalog Number	537641
Synonyms	Calvasculin; Metastasin; Placental calcium-binding protein; Protein Mts1; S100 calcium-binding protein A4
Species	Human
Expression System	E. coli
Accession	P26447
Molecular Weight	Predictes a molecular mass of 13.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	2-101
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 2-101 aa (P26447) 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 Human Protein S100-A4 Fragment (aa 2-101) is a high-purity, functional protein fragment encompassing the complete EF-hand 1 and EF-hand 2 calcium-binding domains. This product is an essential tool for researchers investigating cellular motility, angiogenesis, apoptosis, and immune cell chemotaxis mechanisms, providing targeted insights into domain-specific functions. Protein S100-A4 is a multifunctional calcium-binding protein involved in key cellular processes including cell motility, invasion, angiogenesis, differentiation, apoptosis, and autophagy. It enhances cell motility by interacting with non-muscle myosin heavy chain IIA, promoting filament depolymerization and facilitating chemotaxis. Within the nucleus, it modulates TP53's pro-apoptotic function, while in the extracellular space, it stimulates cytokine production and acts as a chemoattractant complex with PGLYRP1 to promote T-lymphocyte migration via CCR5 and CXCR3 receptors. The protein localizes to the secreted space, nucleus, and cytoplasm, highlighting its diverse roles in both intracellular signaling and extracellular communication pathways.