Recombinant Human S100A12 Protein (His Tag)

Catalog Number: PDEH100908

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Species	Human
Source	E.coli-derived Human S100A12 protein Thr2-Glu92, with an N-terminal His
Calculated MW	9.9 kDa
Observed MW	10 kDa
Accession	P80511
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Background

S100 protein is a family of low molecular weight protein found in vertebrates characterized by two EF-hand calcium-binding motifs. There are at least 21 different S100 proteins, and the name is derived from the fact that the protein is 100% soluble in ammonium sulfate at neutral pH. Most S100 proteins are disulfide-linked homodimer, and is normally present in cells derived from the neural crest, chondrocytes, macrophages, dendritic cells, etc. S100 proteins have been implicated in a variety of intracellular and extracellular functions. They are involved in regulation of protein phosphorylation, transcription factors, the dynamics of cytoskeleton constituents, enzyme activities, cell growth and differentiation, and the inflammatory response. Protein S100-A12, also known as S100 calcium-binding protein A12, Calcium-binding protein in amniotic fluid 1, Calgranulin-C, and S100A12, is a member of the S-101 family. Like the majority of S100 proteins, S100A12 is a dimer, with the interface between the two subunits being composed mostly of hydrophobic residues. The fold of S100A12 is similar to the other known crystal and solution structures of S100 proteins, except for the linker region between the two EF-hand motifs. S100A12 plays an important role in the inflammatory response.

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