Recombinant Human S100A9 Protein (His Tag)

Catalog Number: PKSH031239

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

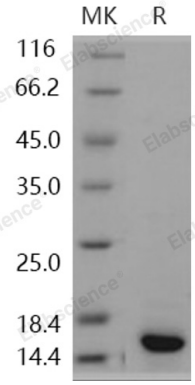
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human S100A9 protein Met 1-Pro 114, with an C-terminal His
Calculated MW	14.6 kDa
Observed MW	16 kDa
Accession	NP_002956.1
Bio-activity	1. Measured by its ability to bind recombinant human S100A8-his in a functional ELISA. 2. Measured by its ability to inhibit proliferation of MCF7 human breast adenocarcinoma cells. The ED_{50} for this effect is typically 10-30 μg/mL.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg 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 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

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 10 0% 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-A9, also known as S100 calcium-binding protein A9, S100A 9, and CAGB, is a member of the S-100 family. S100A9 is expressed by macrophages in acutely inflammed tissues and in chronic inflammation. It is also expressed in epithelial cells constitutively or induced during dermatoses. It has anti-microbial activity towards bacteria and fungi. The anti-microbial and proapoptotic activity of S100A9 is inhibited by zinc ions. S100A9 plays a role in the development of endotoxic shock in response to bacterial lipopolysaccharide. It promotes tubulin polymerization when unphosphorylated. It also promotes phagocyte migration and infiltration of granulocytes at sites of wounding. S100A9 plays a role as a pro-inflammatory mediator in acute and chronic inflammation and up-regulates the release of IL8 and cell-surface expression of ICAM1.

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