# Recombinant Human S100A9 Protein(Trx Tag)

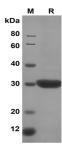
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Catalog Number: PDEH101113



Description **Species** Human Source E.coli-derived Human S100A9 protein Met1-Pro114, with an N-terminal Trx Mol Mass 32.5 kDa Accession P06702 **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 Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 Storage °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at  $< -20^{\circ}$ C for 3 months. This product is provided as lyophilized powder which is shipped with ice packs. Shipping Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Formulation 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

### Data



SDS-PAGE analysis of Human S100A9 proteins, 2µg/lane of Recombinant Human S100A9 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 30 kDa

### Background

## For Research Use Only

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S100 protein is a family of low molecular weight protein found in vertebrates characterized by two EF-hand calciumbinding 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 calciumbinding protein A9, S100A9, 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. S100A9 is a calcium-binding protein. 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 (LPS). 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 proinflammatory mediator in acute and chronic inflammation and up-regulates the release of IL8 and cell-surface expression of ICAM1.