

Recombinant Human S100A8 Protein(GST Tag)

Catalog Number: PDEH100651

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

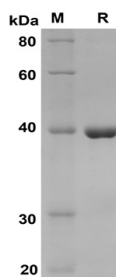
Description

Species	Human
Source	E.coli-derived Human S100A8 protein Met1-Glu93, with an N-terminal GST
Calculated MW	36.2 kDa
Observed MW	40 kDa
Accession	P05109
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.

Data



SDS-PAGE analysis of Human S100A8 proteins, 2µg/lane of
Recombinant Human S100A8 proteins was resolved with
SDS-PAGE under reducing conditions, showing bands at 40
KD

Background

S100A8/S100A9 Heterodimer; S100A8 (also MRP8 and calgranulin A) is a 10 kDa member of the S100 family, EF-hand superfamily of Ca-binding proteins. It is produced by neutrophils and monocytes, and forms Ca²⁺-dependent heterodimer/heterotetramer complexes (termed calprotectin) with S100A9. It functions both intracellularly and extracellularly, where it binds to RAGE and CD36. Human S100A8 is 93 amino acids (aa) in length. It contains two EF-hand motifs (aa 12 - 47 and 46 - 81) and one high-affinity Ca²⁺-binding site (aa 59 - 70). There may be one splice form that shows a 15 aa substitution for the C-terminal 14 amino acids. Although mouse S100A8 is cleaved by MMP-2 after Asn21, it is unclear if human S100A8 is susceptible. Full-length human S100A8 is 57% and 74% aa identical to mouse and canine S100A8, respectively.