Human S100A8 Protein, Tag Free

Catalog # S18-H5112

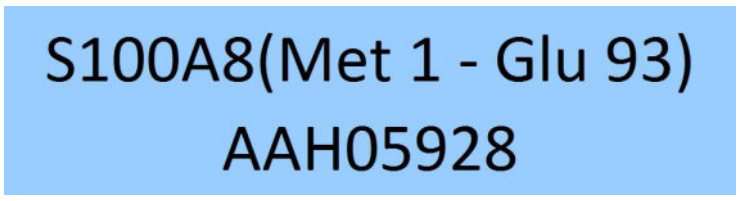
Synonym

S100A8,60B8AG,CAGA,CFAG,CGLA,CP-10,MRP8,NIF,P8

Source

Human S100A8, Tag Free (S18-H5112) is expressed from E.coli cells. It contains AA Met 1 - Glu 93 (Accession # AAH05928).
Predicted N-terminus: Met 1

Molecular Characterization



This protein carries no "tag".

The protein has a calculated MW of 10.8 kDa. The protein migrates as 12 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

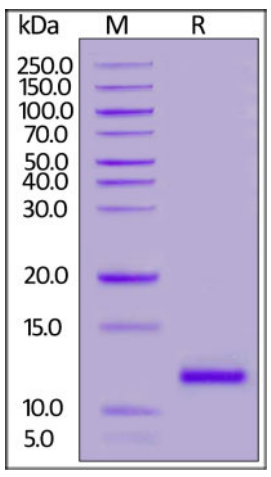
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human S100A8, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Background

S100 calcium binding protein A8 (S100-A8) is also kown as Cystic fibrosis antigen, Migration inhibitory factor-related protein 8 60B8AG, CAGA, CFAG, CGLA, CP-10, L1Ag, MA387, MIF, MRP8, NIF and P8, is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. Most S100 proteins are disulfide-linked homodimer, and is normally present in cells derived from the neural crest, chondrocytes, macrophages, dendritic cells, etc. S100A8 plays a role in various functions of myeloid cells

by forming a heterocomplex with S100A9. S100A8 and S100A9 are known to be overexpressed in certain species of carcinomas. S100A8 may function in the inhibition of casein kinase and as a cytokine. Altered expression of this protein is associated with the disease cystic fibrosis. S100A8 plays an important role in differentiation of thyroid carcinoma possibly by forming a complex with S100A9. S100A8 and S100A9 may also play a key role in inflammation-associated cancer.

References

(1) Schäfer BW, et al., 1996, Trends Biochem. Sci. 21 (4): 134–40.

(2) YASUHIRO ITO, et al., 2009, Anticancer Research October, 29 (10):4157-4161.

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.