

DATASHEET
Version 20181206**S100A1, His, Human****Cat. No.:** Z03084-5**Size:** 5.0 ug

Synonyms: Protein S100-A1, S100 calcium-binding protein A1, S-100 protein alpha subunit, S-100 protein alpha chain, S100A1, S100A, S100, S100-alpha, S100-A1

Description:

S100 calcium-binding protein A1 (S100A1) is a small calcium binding protein with EF-hand structures and belongs to the S100 family. S100 proteins include at least 25 members which are located as a cluster on human chromosome 1q21. S100A1 is found in the heart, skeletal muscle, brain, and kidney. S100A1 mainly resides on the sarcoplasmic reticulum, mitochondria and myofilaments. S100A1 may function in stimulation of Ca^{2+} -induced Ca^{2+} release, inhibition of microtubule assembly, and inhibition of protein kinase C-mediated phosphorylation. Reduced expression of this protein has been implicated in cardiomyopathies.

Recombinant S100 calcium-binding protein A1 (S100A1) with His tag produced in *E. coli* is a single chain containing 101 amino acids with molecular mass of 11.5 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MHHHHHMG S ELETAMETLI NVFHAHSGKE GDKYKLSKKE
00041 LKELLQTELS GFLDAQKDVD AVDKVMKELD ENG DGEVDFQ
00081 EYVVLVAALT VACNNFFWEN S
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Source: *E. coli***Species:** Human**Molecular Weight:** 11.5 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against 20 mM Tris-HCl, 0.1 mM EDTA, pH7.0.**Reconstitution:** Reconstituted in ddH₂O at 200 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE and HPLC.**Endotoxin Level:** < 1 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant S100 calcium-binding protein A1 (S100A1) remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, S100A1 should be stable up to 2 week at 4°C or up to 3 months at -20°C.