

For Research Use Only, Not for use in diagnostic procedures

Human S100A1

Human, recombinant protein expressed in *E. coli*.

Cat# CY-R2251

Amount: 100 µg (1.0 µg/µl)
Lot:**Introduction:**

S100A1 belongs to a multigenic family of small (Mr 9-13 kDa), nonubiquitous Ca²⁺-sensing proteins of the EF-hand type that comprises 22 members showing 25 to 65% sequence identity. S100 proteins, which exhibit a cell- and tissue-specific expression pattern, play a major role in intracellular Ca²⁺-homeostasis. In addition, they have been linked to the Ca²⁺-dependent regulation of a variety of intracellular activities such as cell proliferation and differentiation or the dynamics of cytoskeletal constituents. S100A1 is the most abundant S100 protein in striated muscle and predominantly expressed in the adult heart. Recent gain-of-function experiments have shown that increasing intracellular S100A1 protein levels in the adult heart and skeletal muscle resulted in enhanced Ca²⁺-cycling and contractile function in vitro and in vivo.

Product Description:

Full length of human S100A1, containing an N-terminal GST tag, expressed in *E. coli*. and purified by GSH agarose chromatography.

Gene Information:

The gene accession number is NM_006271.

Gene Aliases:

S100-alpha, S100A

Formulation:

Recombinant human S100A1 is supplied frozen in phosphate buffered saline (PBS) containing 50 % glycerol.

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200 kDa —
116 kDa —
97 kDa —
66 kDa —
45 kDa —
31 kDa —
21.5 kDa —

Recombinant human S100A1 demonstrates approximately 34 kDa band by SDS-PAGE analysis.

Storage:

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, AVOID REPEATED HANDLING AND MULTIPLE FREEZE/THAW CYCLES.

Stability:

Unopened vial at -70 °C, for 1 year after delivery.

References:

1. Herrera, G. A.; Turbat-Herrera, E. A.; Lott, R. L.: S-100 protein expression by primary and metastatic adenocarcinomas. *Am. J. Clin. Path.* 89: 168-176, 1988.
2. Most, P.; Bernotat, J.; Ehlermann, P.; Pleger, S. T.; Reppel, M.; Borries, M.; Niroomand, F.; Pieske, B.; Janssen, P. M. L.; Eschenhagen, T.; Karczewski, P.; Smith, G. L.; Koch, W. J.; Katus, H. A.; Remppis, A.: S100A1: a regulator of myocardial contractility. *Proc. Nat. Acad. Sci.* 98: 13889-13894, 2001.
3. Du, X.-J.; Cole, T. J.; Tennis, N.; Gao, X.-M.; Kontgen, F.; Kemp, B. E.; Heierhorst, J.; Impaired cardiac contractility response to hemodynamic stress in S100A1-deficient mice. *Mol. Cell. Biol.* 22: 2821-2829, 2002.

Related Products

- * CircuLex S100A13 ELISA Kit: Cat# CY-8057
- * CircuLex S100A12 ELISA Kit: Cat# CY-8058
- * CircuLex S100P ELISA Kit: Cat# CY-8060
- * CircuLex S100A8-MRP8 ELISA Kit: Cat# CY-8061
- * CircuLex S100A9-MRP14 ELISA Kit: Cat# CY-8062
- * CircuLex S100A11 ELISA Kit: Cat# CY-8063
- * CircuLex S100A14 ELISA Kit: Cat# CY-8064
- * CircuLex S100A7/Psoriasis ELISA Kit: Cat# CY-8073
- * CircuLex S100A4 ELISA Kit Ver.2: Cat# CY-8086

- * Anti-Human S100A3 (Clone YK-3E3): Cat# CY-M1039
- * Anti-Human S100A4 (p9Ka): Cat# CY-P1026
- * Anti-Human S100P: Cat# CY-P1028
- * Anti-Human S100A10: Cat# CY-P1033

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- * **Anti-Human S100A16: Cat# CY-P1034**
- * **Anti-Human S100A3: Cat# CY-P1039**
- * **Anti-Human S100A2: Cat# CY-P1040**

- * **Human S100B: Cat# CY-R2250**
- * **Human S100A1: Cat# CY-R2251**
- * **Human S100A2: Cat# CY-R2252**
- * **Human S100A3: Cat# CY-R2253**
- * **Human S100A4: Cat# CY-R2254**
- * **Human S100A5: Cat# CY-R2255**
- * **Human S100A6: Cat# CY-R2256**
- * **Human S100A7: Cat# CY-R2257**
- * **Human S100A8: Cat# CY-R2258**
- * **Human S100A9: Cat# CY-R2259-G**
- * **Human S100A9: Cat# CY-R2259-H**
- * **Human S100A10: Cat# CY-R2260**
- * **Human S100A12: Cat# CY-R2262-G**
- * **Human S100A12: Cat# CY-R2262-H**
- * **Human S100A13: Cat# CY-R2263**
- * **Human S100A14: Cat# CY-R2264**
- * **Human S100A16: Cat# CY-R2266**
- * **Human S100P: Cat# CY-R2267**
- * **Human S100A11: Cat# CY-R2269**

- * **Human S100A1 Low Endotoxin: Cat# CY-R2451**
- * **Human S100A3 Low Endotoxin: Cat# CY-R2453**
- * **Human S100A4 Low Endotoxin: Cat# CY-R2454**
- * **Human S100A7 Low Endotoxin: Cat# CY-R2457**
- * **Human S100A8 Low Endotoxin: Cat# CY-R2458**
- * **Human S100A9 Low Endotoxin: Cat# CY-R2459-G**
- * **Human S100A11 Low Endotoxin: Cat# CY-R2461**
- * **Human S100A12 Low Endotoxin: Cat# CY-R2462-G**
- * **Human S100A14 Low Endotoxin: Cat# CY-R2464**
- * **Human S100P Low Endotoxin: Cat# CY-R2467**

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