

For Research Use Only, Not for use in diagnostic procedures

# Human S100B

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

Cat# CY-R2250

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

S-100B is a member of highly homologous Ca<sup>2+</sup> binding proteins family that possess two EF-hand motifs. The family of S100 proteins consists of 22 members. Most S100 proteins exist as dimers (frequently homodimers) within cells. Exclusively expressed in vertebrates, S100 is implicated in various intracellular and extracellular regulatory activities. Studies indicate that S100 proteins are involved in the inhibition of protein phosphorylation, inhibition of cytoskeletal constituent assembly, regulation of Ca<sup>2+</sup> homeostasis, stimulation of enzyme activities, and interaction with transcription factors. S100B is abundant in the nervous system where it is predominantly expressed in astrocytes, oligodendrocytes and Schwann cells. When secreted by astrocytes, S100B has neurotrophic effects during development and nerve regeneration at physiologic (nanomolar) concentrations. However high (micromolar) concentrations of S100B have shown to be neurotoxic, participating in the physiology of neurodegenerative disorders. The clinical values have been demonstrated in stroke, cerebral complications association with cardiac arrest and in patients with severe as well as minor head injury. Patients with progressive melanoma disease also show elevated serum concentrations of S100B.

**Product Description:**

Full length of human S100B, containing an N-terminal GST tag, expressed in *E. coli*. and purified by GSH agarose chromatography.

**Gene Information:**

The gene accession number is NM\_006272.

**Gene Aliases:**

S100-beta

**Formulation:**

Recombinant human S100B is supplied frozen in phosphate buffered saline (PBS) containing 50 % glycerol.

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**Molecular Weight:** 34 kDa

200 kDa - Recombinant human S100B demonstrates approximately 34 kDa band by SDS-PAGE analysis.

116 kDa -

97 kDa -

66 kDa -

45 kDa -

31 kDa -

21.5 kDa -

**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. Allore,R.J., Friend,W.C., O'Hanlon,D., Neilson,K.M., Baupal,R., Dunn,R.J. and Marks,A.; Cloning and expression of the human S100 beta gene. J. Biol. Chem. 265 (26), 15537-15543 (1990)
2. Schafer,B.W. and Heizmann,C.W.; The S100 family of EF-hand calcium-binding proteins: functions and pathology. Trends Biochem. Sci. 21 (4), 134-140 (1996)
3. Pelinka,L.E., Toegel,E., Mauritz,W. and Redl,H.; Serum S 100 B: a marker of brain damage in traumatic brain injury with and without multiple trauma. Shock 19 (3), 195-200 (2003)

**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/Psoriasin 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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