

## Human S100A9 Low Endotoxin Low Endotoxin & Sterilized

Cat# CY-R2459-G

Amount: 100 µg (3.2 µg/µl)

Lot:

### Introduction:

The S100A9/MRP14 protein and S100A8/MRP8 belong to the low molecular mass calcium-binding S100 proteins, they are composed of two distinct helix-loop-helix motifs (EF-hands) flanked by hydrophobic regions at either terminus and separated by a central hinge region. In human S100A9/MRP14 is usually co-expressed with S100A8/MRP8. Both proteins are expressed during myeloid differentiation, are abundant in granulocytes and monocytes, and form heterodimeric complexes. Although a number of possible functions for S100A8-A9 heterocomplex, including antimicrobial activity, have been proposed, the exact role of these proteins in cell metabolism is still unclear. In human, they have been associated with several inflammatory diseases: phagocytes expressing S100A9 belong to the early infiltrating cells and dominate acute inflammatory lesions; in addition, elevated serum levels of S100A8 and S100A9 have been found in patients suffering from a number of inflammatory disorders including cell arteritis, cystic fibrosis, rheumatoid arthritis, dermatoses, chronic inflammatory bowel disease, chronic bronchitis, some malignancies and autoimmune diseases. Both proteins are localized predominantly in the cytoplasm. An increase in the intracellular calcium concentration leads to a translocation to cytoskeletal components and to the plasma membrane. In addition, it could be demonstrated with human monocytes that both proteins are secreted by an energy-consuming pathway which is dependent on an intact microtubule network and involves protein kinase C.

### Product Description:

Full length of human S100A9, containing an N-terminal GST tag, expressed in *E. coli*.

### Gene Information:

The gene accession number is NM\_002965.

### Gene Aliases:

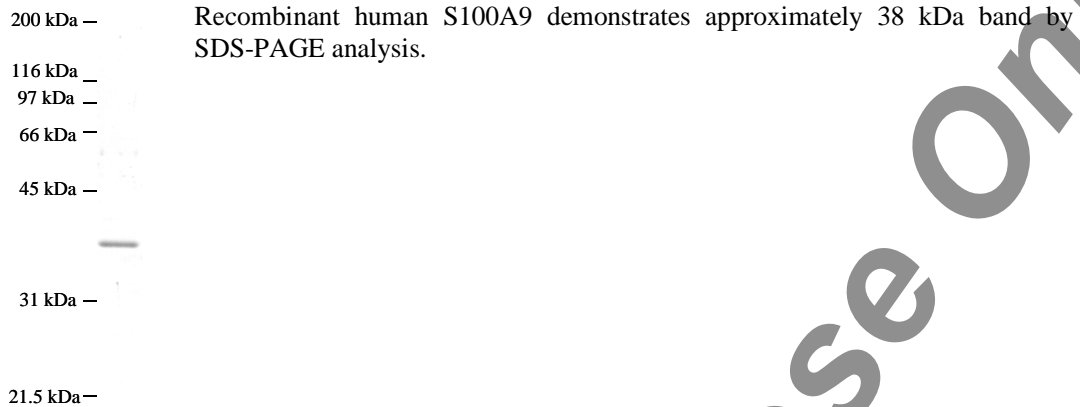
MRP-14, Calguranulin B, CAGB, CAFAG, p14, MAC387, 60B8Ag, L1Ag, MIF, NIF

### Formulation:

Recombinant human S100A9 is supplied frozen in phosphate buffered saline (PBS) containing 50 % glycerol.

### Endotoxin Concentration:

< 0.01 EU/µg as determined by Limulus Amebocyte Lysate (LAL) assay

**For Research Use Only, Not for use in diagnostic procedures****Molecular Weight:** 38 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. Kerkhoff, C., Klempt, M. & Sorg, C. (1998) *Biochim. Biophys. Acta* 1448, 200–211.
2. Sorg, C. (1992) *Behring Inst. Mitt.* 91, 126–137.
3. Foell, D., Hernandez-Rodriguez, J., Sanchez, M., Vogl, T., Cid, M. C., and Roth, J. (2004) *J. Pathol.* 204, 311–316
4. Nacken, W., Roth, J., Sorg, C., and Kerkhoff, C. (2003) *Microsc. Res. Tech.* 60, 569–580
5. Foell, D., Frosch, M., Sorg, C., and Roth, J. (2004) *Clin. Chim. Acta.* 344, 37–51

**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
- \* 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

**PRODUCED BY**

CycLex Co., Ltd.  
1063-103 Terasawaoka  
Ina, Nagano 396-0002  
Japan  
Fax: +81-265-76-7618  
e-mail: [info@cyclex.co.jp](mailto:info@cyclex.co.jp)  
URL: <http://www.cyclex.co.jp>

CycLex/CircuLex products are supplied for research use only. CycLex/CircuLex products and components thereof may not be resold, modified for resale, or used to manufacture commercial products without prior written approval from CycLex Co., Ltd.. To inquire about licensing for such commercial use, please contact us via email.