Human S100A12 Low Endotoxin

Low Endotoxin & Sterilized

Cat# CY-R2462-G

Amount: **100 µg (2.5µg/µL)**
Lot:

Introduction:

Members of the S100 protein family are low molecular mass acidic proteins characterized by cell-type-specific expression and the presence of 2 EF-hand calcium-binding domains. The calgranulins are S100 proteins that are expressed in neutrophils, and are abundant in infiltrating monocytes and granulocytes under conditions of chronic inflammation.

Hofmann et al. (1999) reported that RAGE is a central cell surface receptor for S100A12, which they referred to as EN-RAGE (Extracellular Newly identified RAGE-binding protein), and related members of the S100/calgranulin superfamily. Interaction of EN-RAGE (S100A12) with cellular RAGE on endothelium, mononuclear phagocytes, and lymphocytes triggered cellular activation, with generation of key proinflammatory mediators. In murine models, blockade of ENRAGE/RAGE quenched delayed-type hypersensitivity and inflammatory colitis by arresting activation of central signaling pathways and expression of inflammatory gene mediators.

S100A12 serum concentrations indicate neutrophil activation in JRA, cystic fibrosis, Kawasaki disease and Crohn's disease. Its function as a proinflammatory factor secreted by activated neutrophils makes this protein a potential target for future therapies.

Product Description:

Full length of human S100A12, containing an N-terminal GST tag, expressed in *E. coli*..

Gene Information:

The gene accession number is NM_005621.

Gene Aliases:

EN-RAGE, Calgranulin C, p6, CAAF1, CGRP, cornea-assosiated antigen

Formulation:

Recombinant human S100A12 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

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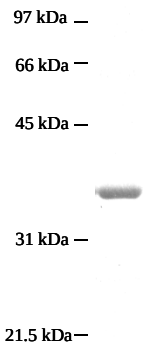
Molecular Weight: 34 kDa



Recombinant human S100A12 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. Hofmann, M. A.; Drury, S.; Fu, C.; Qu, W.; Taguchi, A.; Lu, Y.; Avila, C.; Kambham, N.; Bierhaus, A.; Nawroth, P.; Neurath, M. F.; Slattery, T.; Beach, D.; McClary, J.; Nagashima, M.; Morser, J.; Stern, D.; Schmidt, A. M. : RAGE mediates a novel proinflammatory axis: a central cell surface receptor for S100/calgranulin polypeptides. *Cell*. **97:** 889-901, 1999
2. Foell D, Wittkowski H, Hammerschmidt I, Wulffraat N, Schmeling H, Frosch M, Horneff G, Kuis W, Sorg C, Roth J. Monitoring neutrophil activation in juvenile rheumatoid arthritis by S100A12 serum concentrations. *Arthritis Rheum*. **50:** 1286-95, 2004
3. Foell D, Ichida F, Vogl T, Yu X, Chen R, Miyawaki T, Sorg C, Roth J.: S100A12 (EN-RAGE) in monitoring Kawasaki disease. *Lancet*. **361:** 1270-2, 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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