Recombinant Human S100A8/S100A9 Complex Protein

Cat. No. S100A8/S100A9-10H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human S100A8/S100A9 fusion Protein was expressed in E. coli.
Species	Human
Source	E.coli
Description	S100A8 (also known as MRP8, Calgranulin A, and CP-10) and S100A9 (also known as MRP14 and Calgranulin B) are pro-inflammatory members of the S100 family of secreted calcium binding proteins. They are up-regulated in neutrophils and monocytes at sites of inflammation (e.g. psoriasis, rheumatoid arthritis, cardiac ischemia) and are present at elevated concentrations in rheumatoid arthritis synovial fluid. The 10 kDa human S100A8 and 14 kDa S100A9 each contain two EF-hand calcium binding motifs. Human S100A8 shares 57% and 61% amino acid (aa) sequence identity with mouse and rat S100A8, respectively. Human S100A9 shares 57% and 62% amino acid sequence identity with mouse and rat S100A9, respectively. In the presence of calcium or zinc, S100A8 and S100A9 associate into non-covalent homodimers and 34-35 kDa heterodimers with each other. The heterodimer additionally binds and sequesters manganese, thereby restricting the growth of Mn-dependent bacteria. The S100A8/A9 heterodimer exhibits functions beyond those performed by the individual proteins. These include binding to fatty acids such as arachidonic acid and promoting astrocyte proliferation. S100A8, S100A9, and the heterodimer each promote neutrophil infiltration into sites of inflammation and inflammatory cytokine production by monocytes.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Form	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.
AA Sequence	Met1-Glu93 (S100A8) & Thr2-Pro114 (S100A9)
Purity	Protein A or G purified from hybridoma culture supernatant.
Storage	12 months from date of receipt, 2 to 8 centigrade as supplied.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

GENE INFORMATION

Gene Name	S100A8 S100 calcium binding protein A8 [Homo sapiens (human)]&S100A9 S100 calcium binding protein A9 [Homo sapiens (human)]
Official Symbol	S100A8&S100A9
Synonyms	P8; MIF; NIF; CAGA; CFAG; CGLA; L1Ag; MRP8; CP-10; MA387; 60B8AG; S100-A8&MIF; NIF; P14; CAGB; CFAG; CGLB; L1AG; LIAG; MRP14; 60B8AG; MAC387; S100-A9
Gene ID	6279&6280
mRNA Refseq	NM_002964.5&NM_002965.4
Protein Refseq	NP_002955.2&NP_002956.1
MIM	123885&123886
UniProt ID	P05109&P06702

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