

# Recombinant Human S100 Calcium Binding Protein A5

Cat. No. S100A5-430H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human S100 Calcium Binding Protein A5 cloned from human cDNA was expressed in <i>E.coli</i> . The protein consists of the human S100A5 (residues 1-92, swissprot accession P33763). MW = 21.5 kDa (dimer).
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Protein Length</b>	1-92 a.a.
<b>Description</b>	Protein S100-A5 is a protein that in humans is encoded by the S100A5 gene. The protein encoded by this gene is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. This protein has a Ca <sup>2+</sup> affinity 20- to 100-fold higher than the other S100 proteins studied under identical conditions. This protein also binds Zn <sup>2+</sup> and Cu <sup>2+</sup> , and Cu <sup>2+</sup> strongly which impairs the binding of Ca <sup>2+</sup> . This protein is expressed in very restricted regions of the adult brain.
<b>Purity</b>	> 90% by SDS-PAGE. The protein runs as a monomer giving a single band migrating at a molecular weight < 14 kDa.
<b>Supplied As</b>	1mg/ml in MES 20mM, NaCl 100 mM, pH 6.5. The concentration is calculated from

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

the absorbance at 280nm ( $\epsilon_{280} = 4595 \text{ M}^{-1} \text{ cm}^{-1}$ ).

**Characteristics**

Under the above described conditions, to avoid precipitation, the product can be concentrated to a maximum of 1.5mM (dimer).

**Storage**

-20° C. The protein is stable 25 °C for several hours. After initial defrost, aliquot product into individual tubes and refreeze at -20° C. Avoid repeated freeze/defrost cycles.

## GENE INFORMATION

**Gene Name**

S100A5 S100 calcium binding protein A5 [ Homo sapiens ]

**Synonyms**

S100A5; S100 calcium binding protein A5; S100D; S100A5; Protein S-100D; S100 calcium-binding protein A5; Protein S-100D

**Gene ID**

6276

**mRNA Refseq**

NM\_002962

**Protein Refseq**

NP\_002953

**MIM**

176991

**UniProt ID**

P33763

**Chromosome  
Location**

1q21

**Function**

calcium ion binding

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