

S100 Calcium Binding Protein (S100) Active Protein | S100 active protein

Active S100 Calcium Binding Protein (S100)

CATALOG # AAA161651	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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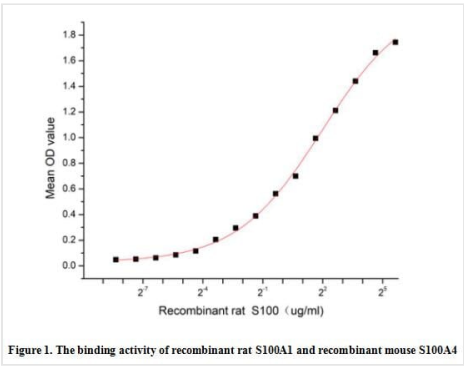
PRODUCT SYNONYMS

S100 Calcium Binding Protein (S100); Active S100 Calcium Binding Protein (S100); S100 Calcium Binding Protein; S100-A1; S100A1; S100-Alpha; S-100 Protein; S-100 protein subunit alpha; S-100 protein alpha chain4; S100 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Met1~Ser94
Applicable Applications for S100 active protein	Activity Assay, Cell Culture
Species	Rat
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	4.1
Research Area	Tumor immunity
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

IMAGES

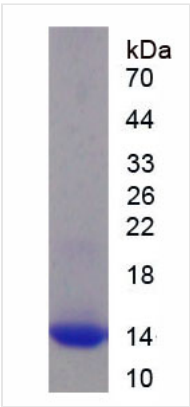


Bioactivity

Small calcium binding protein that S100 Calcium Binding Protein (S100), also known as S100 Alpha (S100A1), is a member of the S100 family of calcium-binding proteins. As with most S100 proteins, S100A1 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and it possess a variety of intracellular and extracellular functions. They interact with multiple receptors and signal transducers to regulate pathways that govern inflammation, cell differentiation, proliferation, energy metabolism, apoptosis, calcium homeostasis, cell cytoskeleton and microbial resistance. S100 Calcium Binding Protein A4 (S100A4) is one of targets of S100A1. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant rat S100A1 and recombinant mouse S100A4. Briefly, S100A1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to S100A4-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-S100A1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant rat S100A1 and recombinant mouse S100A4 was shown in Figure 1, the EC50 for this effect is 3.92 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for S100 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	56090267
NCBI GeneID	295214
NCBI Accession #	NP_001007637.1
NCBI GenBank Nucleotide #	NM_001007636.3
UniProt Accession #	P35467
Molecular Weight	10,560 Da
NCBI Official Full Name	protein S100-A1
NCBI Official Synonym Full Names	S100 calcium binding protein A1
NCBI Official Symbol	S100a1
NCBI Protein Information	protein S100-A1
UniProt Protein Name	Protein S100-A1
UniProt Gene Name	S100a1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

