

## S100 Calcium Binding Protein B (S100B) Active Protein | S100B active protein

Active S100 Calcium Binding Protein B (S100B)

|                               |                            |                                                     |
|-------------------------------|----------------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA148149</b> | REACTIVITY<br><b>Mouse</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|----------------------------|-----------------------------------------------------|

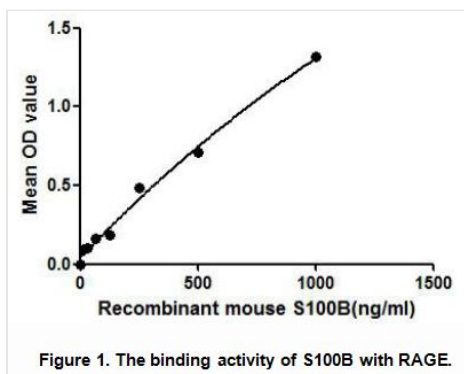
### PRODUCT SYNONYMS

S100 Calcium Binding Protein B (S100B); Active S100 Calcium Binding Protein B (S100B); S100-B; NEF; S100Beta; S-100 protein subunit beta; S100B active protein

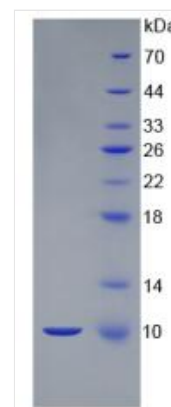
### PRODUCT SPECIFICATIONS

|                                                  |                                                                                                     |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Reactivity                                       | Mouse                                                                                               |
| Purity/Purification                              | > 90%                                                                                               |
| Form/Format                                      | Freeze-dried powder                                                                                 |
| Sequence Length                                  | 92                                                                                                  |
| Applicable Applications for S100B active protein | Activity Assay, Cell Culture                                                                        |
| Tag                                              | N-terminal His Tag                                                                                  |
| Buffer Formulation                               | 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300. |
| Fragment                                         | Met1~Glu92                                                                                          |
| Isoelectric Point                                | 4.9                                                                                                 |

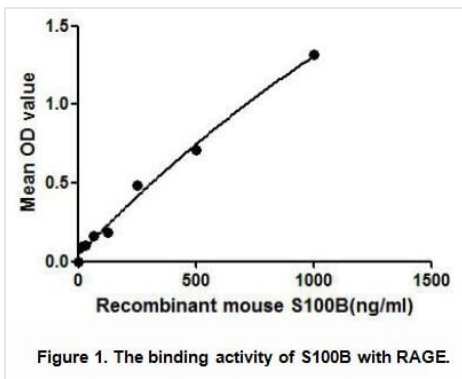
### IMAGES



Application Data



SDS-PAGE



**Activity**

Protein S100B is a member of the S100 family. S100 proteins are EF-hand calcium-binding proteins and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. Experimental results suggest that the receptor for advanced glycation end products (RAGE) plays important roles in mediating S100 protein-induced cellular signaling. Besides, mouse RAGE shares similarities with human RAGE in amino acids sequence with the identity of 78.2%. Thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse S100B and recombinant human RAGE. Briefly, S100B were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to RAGE-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-S100B mAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of S100B and RAGE was shown in Figure 1, and this effect was in a dose dependent manner.

**ADDITIONAL INFORMATION**

|                                                    |                                                  |
|----------------------------------------------------|--------------------------------------------------|
| Product Categories/Family for S100B active protein | Tumor immunity; Infection immunity; Neuroscience |
|----------------------------------------------------|--------------------------------------------------|

**NCBI AND UNIPROT INFORMATION**

|                                  |                                                                         |
|----------------------------------|-------------------------------------------------------------------------|
| NCBI GI #                        | 6677839                                                                 |
| NCBI GeneID                      | 20203                                                                   |
| NCBI Accession #                 | NP_033141.1                                                             |
| NCBI GenBank Nucleotide #        | NM_009115.3                                                             |
| UniProt Accession #              | P50114                                                                  |
| Molecular Weight                 | Predicted Molecular Weight: 12.0kDa<br>Accurate Molecular Weight: 10kDa |
| NCBI Official Full Name          | protein S100-B                                                          |
| NCBI Official Synonym Full Names | S100 protein, beta polypeptide, neural                                  |
| NCBI Official Symbol             | S100b                                                                   |
| NCBI Official Synonym Symbols    | Bpb; AI850290                                                           |
| NCBI Protein Information         | protein S100-B                                                          |
| UniProt Protein Name             | Protein S100-B                                                          |
| UniProt Gene Name                | <b>S100b</b>                                                            |

**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.

