



P90012Ra01
S100 Calcium Binding Protein (S100)
Organism: Rattus norvegicus (Rat)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES

1th Edition (Revised in February, 2012)

[DESCRIPTION]

Protein Names: S100 Calcium Binding Protein

Gene Names: S100

Size: 100 μ g

Source: Recombinant

Expression Host: *E. coli*

Function: Weakly binds calcium but binds zinc very tightly-distinct binding sites with different affinities exist for both ions on each monomer. Physiological concentrations of potassium ion antagonize the binding of both divalent cations, especially affecting high-affinity calcium-binding sites.

Subcellular Location: Cytoplasm.

Tissue Specificity: Although predominant among the water-soluble brain proteins, S100 is also found in a variety of other tissues.

[PROPERTIES]

Residues: Met1~Ser94 (Accession # P35467), with a N-terminal His-tag.

Grade & Purity: >97%, 12.08 kDa as determined by SDS-PAGE reducing conditions.

Form & Buffer: Supplied as lyophilized form in PBS, pH 7.4.

Endotoxin Level: <1.0 EU per 1 μ g(determined by the LAL method).

Applications: SDS-PAGE; WB; ELISA;IP.

(May be suitable for use in other assays to be determined by the end user.)

Predicted Molecular Mass: 12.08 kDa

[PREPARATION]

Reconstitute in PBS.



[STORAGE AND STABILITY]

Storage: Store at 4°C for short term storage (1-2 weeks). Aliquot and store at -20°C or -80°C for long term storage. Avoid repeated freeze/thaw cycles.

Valid period: 12 months stored at -80°C.

[BACKGROUND]

The target protein is fused with a His-tag and its sequence is listed below. The first Met is an initiator amino acid. Moreover, Gly and Ser are added to improve the flexibility of N-terminus at both ends of the His-tag, which will increase the chelating ability of the tag to Ni-Sepharose during purification.

MGHHHHHSGSEF-MGSELETAME TLINVFHAHS GKEGDKYKLS KKELKDLLQT ELSSFLDVQK
DADAVDKIMK ELDENG DGEV DFQEFVVLVAALTVACNFF WENS

[REFERENCES]

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2. Tsoporis J.N., et al. (2010) *Circ. Res.* 106:93-101.
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