



# Rat Soluble protein-100B,S-100B ELISA Kit

Product Code	CSB-E08066r
Abbreviation	S100B
Target Name	S100 calcium binding protein B
Uniprot No.	P04631
Alias	NEF, S100, S100beta, OTTHUMP00000174958 S-100 calcium-binding protein, beta chain S100 beta S100 calcium binding protein, beta (neural) S100 calcium-binding protein, beta S100 calcium-binding protei
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Sample Types	serum, plasma, tissue homogenates
Detection Range	3.12 pg/mL-200 pg/mL
Sensitivity	0.78 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	S100b
Tag Info	quantitative
Protein Description	Sandwich

## Description

The Rat Soluble protein-100B (S-100B) ELISA Kit is a highly sensitive and specific tool for the quantitative measurement of Protein S100-B levels in serum, plasma, and tissue homogenates of Rattus norvegicus (Rat) samples.

Protein S100-B, also known as S100 calcium-binding protein B, is a member of the S100 family of calcium-binding proteins that play a crucial role in signal transduction pathways in the brain and other tissues. Our ELISA kit is specifically designed to measure S100-B protein levels, making it an essential tool for researchers studying signal transduction in the context of neuroscience and disease.

With a detection range of 3.12 pg/mL to 200 pg/mL and a sensitivity of 0.78 pg/mL, our S-100B ELISA kit offers exceptional accuracy and precision in measuring protein levels. The assay time is only 1-5 hours, and the sample volume required is just 50-100ul. The detection wavelength is 450 nm, and the assay principle is quantitative, utilizing a sandwich method for precise



measurements.

Our S-100B ELISA kit has been cited in more than 21 research articles, attesting to its high quality and reliability. Whether you are studying the molecular mechanisms of neurological disorders or investigating the role of S100-B in signal transduction, our kit can help you achieve your research goals.

## Target Details

This protein 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; however, this gene is located at 21q22.3. This protein may function in Neurite extension, proliferation of melanoma cells, stimulation of Ca<sup>2+</sup> fluxes, inhibition of PKC-mediated phosphorylation, astrocytosis and axonal proliferation, and inhibition of microtubule assembly. Chromosomal rearrangements and altered expression of this gene have been implicated in several neurological, neoplastic, and other types of diseases, including Alzheimer's disease, Down's syndrome, epilepsy, amyotrophic lateral sclerosis, melanoma, and type I diabetes.

## Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

## Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of rat S-100B in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1	Average %	85
	Range %	80-93
1:2	Average %	97
	Range %	92-104
1:4	Average %	94
	Range %	89-100
1:8	Average %	95
	Range %	89-101

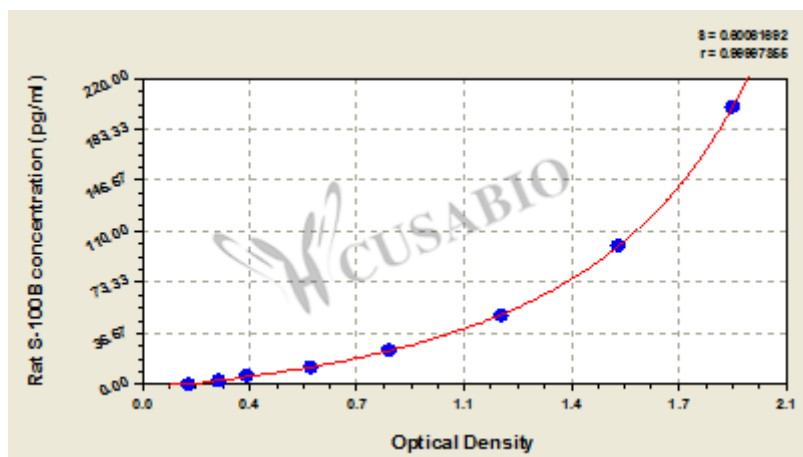
## Recovery

The recovery of rat S-100B spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	92	88-96
EDTA plasma (n=4)	89	84-96

## Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
200	1.954	1.874	1.914	1.751
100	1.562	1.531	1.547	1.384
50	1.174	1.168	1.171	1.008
25	0.802	0.816	0.809	0.646
12.5	0.567	0.552	0.560	0.397
6.25	0.347	0.355	0.351	0.188
3.12	0.264	0.261	0.263	0.100
0	0.158	0.167	0.163	?

## Msds

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