

S100B (Human) ELISA Kit

Catalog # KA0037

Size 1 Kit

Specification

Product Description	S100B (Human) ELISA Kit is a HRP labelled antibody based sandwich enzyme immunoassay for the quantitative measurement of human S100B protein just only for serum samples, heparin plasma samples and cerebrospinal fluid samples.
Suitable Sample	Cerebrospinal Fluid, Serum
Sample Volume	100 uL
Label	HRP-conjugate
Detection Method	Colorimetric
Assay Type	Quantitative
Calibration Range	10 to 320 pg/mL
Reactivity	Bovine, Cat, Goat, Hamster, Human, Rabbit, Rat
Regulation Status	For research use only (RUO)
Storage Instruction	Store the kit at 4°C.

Applications

- Quantification

Gene Info — S100B

Entrez GeneID	6285
Gene Name	S100B
Gene Alias	NEF, S100, S100beta

Gene Description	S100 calcium binding protein B
Omim ID	176990
Gene Ontology	Hyperlink
Gene Summary	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; however, this gene is located at 21q22.3. This protein may function in Neurite extension, proliferation of melanoma cells, stimulation of Ca ²⁺ 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. [provided by RefSeq]
Other Designations	OTTHUMP00000174958 S-100 calcium-binding protein, beta chain S100 beta S100 calcium binding protein, beta (neural) S100 calcium-binding protein, beta S100 calcium-binding protein, beta (neural)

Publication Reference

- [EEG Power Spectral Density in NREM Sleep is Associated with the Degree of Hypoxia in Patients with Obstructive Sleep Apnea.](#)

Chan Zhang, Yanhui Wang, Dongxiao Li, Mengjie Li, Xiaofeng Zhang, Wenzheng Rong, Pu Wang, Lanjun Li, Shujing He, Yuming Xu, Yusheng Li.

Nature and Science of Sleep 2023 Nov; 15:979.

Application: Quant, Human, Human blood
- [Post-dialysis fatigue and serum S100B protein in patients on chronic hemodialysis. A pilot study.](#)

Maurizio Bossola, Anna Picca, Emanuele Marzetti, Gilda Pepe, Manuela Antocicco, Enrico Di Stasio.

Therapeutic Apheresis and Dialysis : official peer-reviewed journal of the International Society for 2023 Jun; 27(3):471.

Application: Quant, Human, Human blood
- [Reassessment of mitochondrial cyclophilin D as a target for improving cardiac arrest outcomes in the era of therapeutic hypothermia.](#)

Vincent Jahandiez, Bruno Pillot, Gabriel Bidaux, Radu Bolbos, Neven Stevic, Marlene Wiart, Michel Ovize, Laurent Argaud, Martin Cour.

Translational Research 2022 Nov; 249:37.

Application: ELISA, Mouse, Mouse blood

- [Neurofilament light is a biomarker of brain involvement in lupus and primary Sjögren's syndrome.](#)

Anne B Tjensvoll, Maria B Lauvsnes, Henrik Zetterberg, Jan T Kvaløy, Ingeborg Kvivik, Stian S Maroni, Ole J Greve, Mona K Beyer, Shunsei Hirohata, Chaim Putterman, Guido Alves, Erna Harboe, Kaj Blennow, Lasse G Gørransson, Roald Omdal.

Journal of Neurology 2021 Apr; 268(4):1385.

Application: Quant, Human, Human cerebrospinal fluid

- [Rapid optofluidic detection of biomarkers for traumatic brain injury via surface-enhanced Raman spectroscopy.](#)

Rickard JJS, Di-Pietro V, Smith DJ, Davies DJ, Belli A, Oppenheimer PG.

Nature Biomedical Engineering 2020 Jun; 4(6):610.

Application: Quant, DC argon plasma, Substrat

- [S-100 \$\beta\$ in chronic subdural haematoma: Prospective cohort study.](#)

Thomas PAW, Moffatt CE, Rudd D, Marshman LAG.

Journal of Clinical Neuroscience 2019 Sep; 67:145.

Application: Quant, Human, Human serum

- [Interleukin-1-related activity and hypocretin-1 in cerebrospinal fluid contribute to fatigue in primary Sjögren's syndrome.](#)

Bårdsen K, Brede C, Kvivik I, Kvaløy JT, Jonsdottir K, Tjensvoll AB, Ruoff P, Omdal R.

Journal of Neuroinflammation 2019 May; 16(1):102.

Application: Quant, Human, Human cerebrospinal fluid

- [Tumor-associated factors are enriched in lymphatic exudate compared to plasma in metastatic melanoma patients.](#)

Broggi MAS, Maillat L, Clement CC, Bordry N, Corthésy P, Auger A, Matter M, Hamelin R, Potin L, Demurtas D, Romano E, Harari A, Speiser DE, Santambrogio L, Swartz MA.

The Journal of Experimental Medicine 2019 May; 216(5):1091.

Application: Quant, Human, Human plasma

- [The gut microbiome regulates the increases in depressive-type behaviors and in inflammatory processes in the ventral hippocampus of stress vulnerable rats.](#)

Pearson-Leary J, Zhao C, Bittinger K, Eacret D, Luz S, Vigderman AS, Dayanim G, Bhatnagar S.

Molecular Psychiatry 2019 Mar; [Epub].

Application: Quant, Rat, Rat plasma

- [Is There Any Relevance Between Serum Heavy Metal Concentration and BBB Leakage in Multiple Sclerosis Patients?](#)

Paknejad B, Shirkhanloo H, Aliomrani M.

Biological Trace Element Research 2018 Oct; [Epub].

Application: Quant, Human, Human serum

- [The blood-brain barrier, TWEAK, and neuropsychiatric involvement in human systemic lupus erythematosus and primary Sjögren's syndrome.](#)

Lauvsnes MB, Tjensvoll AB, Maroni SS, Kvivik I, Grimstad T, Greve OJ, Harboe E, Gøransson LG, Putterman C, Omdal R.

Lupus 2018 Nov; 27(13):2101.

Application: IHC-P, WB, Human, Pancreatic ductal adenocarcinoma, H6c7, Panc1, T3M4 cells

- [BET bromodomain inhibitors synergize with ATR inhibitors in melanoma in melanoma.](#)

Muralidharan SV, Einarsdottir BO, Bhadury J, Lindberg MF, Wu J, Campeau E, Bagge RO, Stierner U, Ny L, Nilsson LM, Nilsson JA.

Cell Death & Disease 2017 Aug; 8(8):e2982.

Application: Quant, Mouse, Mouse plasma

- [S100B promotes injury-induced vascular remodeling through modulating smooth muscle phenotype.](#)

Cao T, Zhang L, Yao LL, Zheng F, Wang L, Yang JY, Guo LY, Li XY, Yan YW, Pan YM, Jiang M, Chen L, Tang JM, Chen SY, Jia-NingWang.

Biochimica et Biophysica Acta 2017 Jul; 1863(11):2772.

Application: Quant, Rat, Rat serum, vascular smooth muscle cells

- [Inflammation and vascular remodeling in the ventral hippocampus contributes to vulnerability to stress.](#)

Pearson-Leary J, Eacret D, Chen R, Takano H, Nicholas B, Bhatnagar S.

Translational Psychiatry 2017 Jun; 7(6):e1160.

Application: Quant, Rat, Rat plasma

- [Fast therapeutic hypothermia prevents post-cardiac arrest syndrome through cyclophilin D-mediated mitochondrial permeability transition inhibition.](#)

Jahandiez V, Cour M, Bochaton T, Abrial M, Loufouat J, Gharib A, Varennes A, Ovize M, Argaud L.

Basic Research in Cardiology 2017 Jul; 112(4):35.

Application: Quant, Rabbit, Rabbit plasma

- [Effect of Exercise Intensity on Neurotrophic Factors and Blood-Brain Barrier Permeability Induced by Oxidative-Nitrosative Stress in Male College Students.](#)

Roh HT, Cho SY, Yoon HG, So WY.

International Journal of Sport Nutrition and Exercise Metabolism 2016 Dec; 27(3):139.

Application: Quant, Human, Human serum

- [Soluble TLR2 and 4 concentrations in cerebrospinal fluid in HIV/SIV-related neuropathological conditions.](#)

Mothapo KM, Ten Oever J, Koopmans P, Stelma FF, Burm S, Bajramovic J, Verbeek MM, Rikkers MG, Netea MG, Koopman G, van der Ven AJ.

Journal of NeuroVirology 2017 Apr; 23(2):250.

Application: Quant, Human, central nervous system (CNS) from Human

- [The effects of aerobic exercise training on oxidant-antioxidant balance, neurotrophic factor levels, and blood-brain barrier function in obese and non-obese men.](#)

Roh HT, So WY.

Journal of Sport and Health Science 2017 Dec; 6(4):447.

Application: Quant, Human, Human serum

- [The effects of aerobic exercise training on oxidant-antioxidant balance, neurotrophic factor levels, and blood-brain barrier function in obese and nonobese men.](#)

Roh HT, So WY.

Journal of Sport and Health Science 2017 Dec; 6(4):447.

Application: ELISA, Human, Serum

- [Obesity promotes oxidative stress and exacerbates blood-brain barrier disruption after high-intensity exercise.](#)

Roh H, Cho S, So W.

Journal of Sport and Health Science 2017 Jun; 6(2):225.

Application: ELISA, Human, Serum

- [Minor Changes in Core Temperature Prior to Cardiac Arrest Influence Outcomes: An Experimental Study.](#)

Cour M, Jahandiez V, Loufouat J, Ovize M, Argaud L.

Journal of Cardiovascular Pharmacology 2015 Jul; 20(4):407.

Application: Quant, Rabbit, Rabbit blood

- [The prognostic significance of the serum biomarker H-FABP in comparison with S100b in severe traumatic brain injury.](#)

Walder B, Robin X, Rebetez MM, Copin JC, Gasche Y, Sanchez JC, Turck N.

Journal of Neurotrauma 2013 Oct; 30(19):1631.

Application: Quant, Human, Human plasma

- [Cognitive Function and Oxidative Stress After Carotid Endarterectomy: Comparison of Propofol to Sevoflurane Anesthesia.](#)

Kalimeris K, Kouni S, Kostopanagiotou G, Nomikos T, Fragopoulou E, Kakisis J, Vasdekis S, Matsota P, Pandazi A.

Journal of Cardiothoracic and Vascular Anesthesia 2013 Dec; 27(6):1246.

Application: ELISA, Human, Serum

- [Induction of Oxidative and Nitrosative damage leads to Cerebrovascular Inflammation in Animal Model of Mild Traumatic Brain Injury Induced by Primary Blast.](#)

Abdul-Muneer PM, Schuetz H, Wang F, Skotak M, Jones J, Gorantla S, Zimmerman MC, Chandra N, Haorah J.

Free Radical Biology and Medicine 2013 Jul; 60:282.

Application: ELISA, Rat, Rat blood

- [Marked increase of the astrocytic marker S100B in the cerebrospinal fluid of HIV-infected patients on LPV/r-monotherapy.](#)

Du Pasquier RA, Jilek S, Kalubi M, Yerly S, Fux CA, Gutmann C, Cusini A, Günthard HF, Cavassini M, Vernazza PL; Swiss HIV Cohort Study.

AIDS 2013 Jan; 27(2):203.

Application: ELISA, Human, CSF

- [Remote ischemic preconditioning in cyanosed neonates undergoing cardiopulmonary bypass: A randomized controlled trial.](#)

Jones BO, Pepe S, Sheeran FL, Donath S, Hardy P, Shekerdemian L, Penny DJ, McKenzie I, Horton S, Brizard CP.

The Journal of Thoracic and Cardiovascular Surgery 2013 Dec; 146(6):1334.

Application: ELISA, Human, Plasma

- [S100B: role in cardiac remodeling and function following myocardial infarction in diabetes.](#)

Mohammadzadeh F, Desjardins JF, Tsoporis JN, Proteau G, Leong-Poi H, Parker TG.

Life Sciences 2013 Mar; 92(11):639.

Application: ELISA, Mouse, Serum

- [Plasma heart-type fatty acid binding protein level in acute ischemic stroke: comparative analysis with plasma S100B level for diagnosis of stroke and prediction of long-term clinical outcome.](#)

Park SY, Kim MH, Kim OJ, Ahn HJ, Song JY, Jeong JY, Oh SH.

Clinical Neurology and Neurosurgery 2013 Apr; 115(4):405.

Application: Quant, Human, Plasma from patients with acute ischemic stroke

- [Hyperglycaemia-induced pro-inflammatory responses by retinal Muller glia are regulated by the receptor for advanced glycation end-products \(RAGE\).](#)

Zong H, Ward M, Madden A, Yong PH, Limb GA, Curtis TM, Stitt AW.

Diabetologia 2010 Dec; 53(12):2656.

Application: Quant, Human, Rat, MIO-M1 cells, Rat retina

- [Relative quantification of proteins in human cerebrospinal fluids by MS/MS using 6-plex isobaric tags.](#)

Dayon L, Hainard A, Licker V, Turck N, Kuhn K, Hochstrasser DF, Burkhard PR, Sanchez JC.

Analytical Chemistry 2008 Mar; 80(8):2921.

Application: Quant, Human, Human cerebrospinal fluid

Disease

- [Alzheimer disease](#)
- [Bipolar Disorder](#)
- [Cognition Disorders](#)
- [Dementia](#)
- [Depressive Disorder](#)
- [Diseases in Twins](#)
- [Genetic Predisposition to Disease](#)
- [Mental Disorders](#)
- [Neuropsychological Tests](#)
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