Glutamate ELISA Kit

Catalog # KA1909 Size 1 Kit

Specification

Product Description	Glutamate ELISA Kit is an enzyme immunoassay for the quantitative measurement of glutamate in urine and various biological samples.
Suitable Sample	Urine and various biological samples.
Sample Volume	25 uL of prepared samples
Label	Peroxidase-conjugated
Detection Method	Colorimetric
Assay Type	Quantitative
Calibration Range	0.26 to 60 ug/mL
Limit of Detection	0.17 ug/mL
Regulation Status	For research use only (RUO)
Storage Instruction	Store the kit at 4°C.

Applications

- Quantification

Publication Reference

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- Neurobiology of co-morbid stress and a western diet in mice: mitochondrial, proteomic and behavioral outcomes.

  Tessa Helman, Makayla Nicholas, Brock Lyon, Saba Naghipour, Chul-Kyu Kim, Trissha Ybanez, Kai Robertson, Tia A Griffith, Jason N Peart, Nicolas J C Stapelberg, John P Headrick, Eugene F Du Toit.

  Metabolic Brain Disease 2026 Apr; 41(1):94.

  Application: ELISA, Quant, Mice, Blood

- Thymoquinone controlled obesity and invigorated cognitive and memory performance in rats consuming a high-fat diet via modulating oxidative stress, inflammation and apoptosis.

  Mostafa D Mostafa, Maggie E Amer, Magda A ElKomy, Azza I Othman, Mohamed A El-Missiry.

  Scientific Reports 2025 Jun; 15(1):20171.

  Application: ELISA, Quant, Rat, Brain homogenates

- Neuroprotective and antimalarial effects of Juglans regia leaf extracts in a murine model of cerebral malaria.

  Afra Alharbi., Shurug Albasyouni., Esam Al-Shaebi., Saleh Al Quraishy., Rewaida Abdel-Gaber.

  Frontiers in veterinary science 2025 Apr; 0:12.

  Application: ELISA, Mouse, Brain samples

- GABA-induced monocytic reactive oxygen species impair CD4 restoration in treated HIV-1 adults.

  Mehwish Younas, Sandrine Gimenez, Yea-Lih Lin, Clément Mettling, Domenico Maiorano, Jacques Reynes, Philippe Pasero, Philippe Rondard, Christina K Psomas, Pierre Corbeau.

  The Journal of infectious diseases 2025 Feb; [Epub].

  Application: ELISA (Quant), Human, Plasma

- The ameliorative potential of platelet-rich plasma and exosome on renal ischemia/reperfusion-induced uremic encephalopathy in rats.

  Hani M Abdelsalam., Alaa Samy., Engy E A Mosaleem., Moustafa Salaheldin Abdelhamid.

  Scientific Reports 2024 Nov; 14(1):26888.

  Application: ELISA (GABA measurement), Rat, Brain tissue

- Microglia either promote or restrain TRAIL-mediated excitotoxicity caused by Aβ1-42 oligomers.

  Jian Zou, Elizabeth McNair, Sagan DeCastro, Scott P Lyons, Angie Mordant, Laura E Herring, Ryan P Vetreno, Leon G Coleman

  J Neuroinflammation 2024 9; 21(1):215.

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- Unveiling the protective potential of mirabegron against thioacetamide-induced hepatic encephalopathy in rats: Insights into cAMP/PPAR-γ/p-ERK1/2/p S536 NF-κB p 65 and p-CREB/BDNF/TrkB in parallel with oxidative and apoptotic trajectories.

  Hui-Ting Chen, Ying Yi, Wan-Yi Huang, Min-Yu Wu, Qin Xiong, Xian-Ren Wang, Min Liu, Xuan Wu, Guang-Li Jiang, Hui-Wen Zhuang, Kai-Tian Chen, Guan-Xia Xiong, Shu-Bin Fang.

  Int Immunopharmacol. 2024 Nov 15:141:112944. doi: 10.1016/j.intimp.2024.112944. Epub 2024 Aug 16. 2024 Nov; 141:112944.

  Application: ELISA, Human, Plasma extracellular vesicles

- Myocardial infarction causes sex-dependent dysfunction in vagal sensory glutamatergic neurotransmission that is mitigated by 17β-Estradiol.

  Asokan Devarajan, Ke Wang, Zulfiqar A Lokhandwala, Maryam Emamimeybodi, Kassandra Shannon, John D Tompkins, Andrea L Hevener, Aldons J Lusis, E Dale Abel, Marmar Vaseghi.

  JCI Insight 2024 Jun; 0:e181042.

  Application: Quant, Mice, Vagal ganglia

- Ameliorating effect of ketogenic diet on acute status epilepticus: Insights into biochemical and histological changes in rat hippocampus.

  Nagwa I. Shehata, Mai A. Abdelsamad, Hebat Allah A. Amin, Nermin A. H. Sadik and Amira A. Shaheen.

  Journal of Food Biochemistry 2022 May; e14217.

  Application: ELISA, Rat, rat hippocampus

- Interictal plasma glutamate levels are elevated in individuals with episodic and chronic migraine.

  Chae Gyu Park, Min Kyung Chu.

  Scientific Reports 2022 Apr; 12(1):6921.

  Application: Quant, Human, Plasma

- Role of PI3K/Akt axis in mitigating hippocampal ischemia-reperfusion injury via CB1 receptor stimulation by paracetamol and FAAH inhibitor in rat.

  Sherif S Abdel Mageed, Ramy M Ammar, Noha N Nassar, Helmy Moawad, Ahmed S Kamel.

  Neuropharmacology 2021 Dec; 207:108935.

  Application: Quant, Rat, Rat brain

- Testing the combined effects of probiotics and prebiotics against neurotoxic effects of propionic acid orally administered to rat pups.

  Anwar Al Suhaibani, Abir Ben Bacha, Mona Alonazi, Ramesa Shafi Bhat, Afaf El-Ansary.

  Food Science & Nutrition 2021 Jun; 9(8):4440.

  Application: Quant, Rat, Rat brain

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- Melatonin exerts a neuroprotective effect against 𝛾-radiation-induced brain injury in the rat through the modulation of neurotransmitters, inflammatory cytokines, oxidative stress, and apoptosis.

  Mohamed A El-Missiry, Sameh Shabana, Sara J Ghazala, Azza I Othman, Maggie E Amer

  Environ Sci Pollut Res Int 2021 6; 28(24):31108-3112.

- Melatonin exerts a neuroprotective effect against γ-radiation-induced brain injury in the rat through the modulation of neurotransmitters, inflammatory cytokines, oxidative stress, and apoptosis.

  Mohamed Amr El-Missiry, Sameh Shabana, Sara J Ghazala, Azza I Othman, Maggie E Amer.

  Environmental Science and Pollution Research International 2021 Jun; 28(24):31108.

  Application: Quant, Rat, Rat plasma

- Protective effect of metformin on rat diabetic retinopathy involves suppression of toll-like receptor 4/nuclear factor-k B expression and glutamate excitotoxicity.

  Suliman Y Alomar, Bassant M Barakat, Mohamed Eldosoky, Hoda Atef, Abdelaty Shawky Mohamed, Reda Elhawary, Mohamed El-Shafey, Amal M Youssef, Amany Y Elkazaz, Attia M Gabr, Abdelhakeem A Elaskary, Mohamed A K Salih, Sultan Othman Alolayan, Sawsan A Zaitone.

  International Immunopharmacology 2021 Jan; 90:107193.

  Application: Quant, Rat, Rat kidney

- Microglial depletion and repopulation in brain slice culture normalizes sensitized proinflammatory signaling.

  Coleman LG Jr, Zou J, Crews FT.

  Journal of Neuroinflammation 2020 Jan; 17(1):27.

  Application: Quant, Rat, Primary organotypic hippocampal slice culture

- Vildagliptin Attenuates Huntington's Disease through Activation of GLP-1 Receptor/PI3K/Akt/BDNF Pathway in 3-Nitropropionic Acid Rat Model.

  Sayed NH, Fathy N, Kortam MA, Rabie MA, Mohamed AF, Kamel AS.

  Neurotherapeutics : the Journal of the American Society for Experimental NeuroTherapeutics 2020 Jan; 17(1):252.

  Application: Quant, Rat, Rat serum

- Nanoformulated ellagic acid ameliorates pentylenetetrazol-induced experimental epileptic seizures by modulating oxidative stress, inflammatory cytokines and apoptosis in the brains of male mice.

  El-Missiry MA, Othman AI, Amer MA, Sedki M, Ali SM, El-Sherbiny IM.

  Metabolic Brain Disease 2020 Feb; 35(2):385.

  Application: Quant, Mouse, Mouse plasma

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- An association study of severity of intellectual disability with peripheral biomarkers of disabled children in a rehabilitation home, Kolkata, India.

  Aaveri Sengupta, Ujjal Das, Krishnendu Manna, Sushobhan Biswas, Siddhartha Datta, Amitava Khan, Tuhin Bhattacharya, Samrat Saha, Tapashi Mitra, Swapan Mukherjee, Anup K Sadhu, Suhrita Paul, Saurabh Ghosh, Rakhi Dey Sharma, Sanjit Dey

  Sci Rep 2019 9; 9(1):13652.

- Effect of valproic acid alone or combined with low dose gamma irradiation in modulating PTZ-induced convulsions in rats involving AKT/m-TOR pathway.

  Lotfy DM, Safar MM, Mohamed SH, Kenawy SA.

  Life Sciences 2018 Nov; 212:261.

  Application: Quant, Rat, Rat brains

- Peripheral glutamate and TNF-α levels in patients with intracerebral hemorrhage: Their prognostic values and interactions toward the formation of the edemal volume.

  Rendevski V, Aleksovski B, Stojanov D, Aleksovski V, Rendevska AM, Kolevska M, Stojanoski K, Gjorgoski I.

  Neurologia I Neurochirurgia Polska 2017 Oct; [Epub].

  Application: Quant, Human, Plasma from patients with acute, primary, supratentorial intracerebral hemorrhage (ICH)

- Spinal administration of mGluR5 antagonist prevents the onset of bortezomib induced neuropathic pain in rat.

  Ghelardini C, Menicacci C, Cerretani D, Bianchi E.

  Neuropharmacology 2014 Nov; 86:294.

  Application: ELISA, Rat, CSF

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