Corticosterone ELISA Kit

Catalog # KA0468 Size 1 Kit

Specification

Product Description	Corticosterone ELISA Kit is a competitive enzyme immunoassay for the quantitative measurement of corticosterone.
Suitable Sample	Cell Culture Samples, Milk, Plasma, Saliva, Serum, Urine
Sample Volume	25 uL
Label	Peroxidase-conjugated
Detection Method	Colorimetric
Assay Type	Quantitative
Calibration Range	0.391 to 100 ng/mL
Regulation Status	For research use only (RUO)
Storage Instruction	Store components of the kit at 4°C or -20°C as described in the protocol.

Applications

- Quantification

Publication Reference

- Intestinal epithelial TLR4 knock out induces sex-specific effects on gut barrier and microbiome in an activity-based anorexia model.

  Colin Salaün, Marion Huré, Charlène Guérin, Christine Bôle-Feysot, Audrey Valentin, Fatima Léon, Sarah Lenoir, Jean-Luc do-Rego, Jean-Claude do-Rego, Ludovic Langlois, David Ribet, Najate Achamrah, Moïse Coëffier.

  Gut microbes 2026 Dec; 18(1):2637316.

  Application: Quant, Mouse, Plasma

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- Chronic social defeat stress alters DNA methylation profiles of male germ cells in mice.

  Hikari Ohno, Yutaka Yamamuro, Shu Aizawa.

  Biochemical and Biophysical Research Communications 2025 Apr; 758:151650.

  Application: ELISA, Quant, Mice, Serum

- Role of gut-derived bacterial lipopolysaccharide and peripheral TLR4 in immobilization stress-induced itch aggravation in a mouse model of atopic dermatitis.

  Da-Eun Cho, Joon-Pyo Hong, Yoongeun Kim, Ju Yeon Sim, Heenam Stanley Kim, Song-Rae Kim, Bombi Lee, Hyo-Sung Cho, Ik-Hyun Cho, Sooan Shin, Mijung Yeom, Soon-Kyeong Kwon, In-Seon Lee, Hijoon Park, Kyuseok Kim, Dae-Hyun Hahm.

  Scientific Reports 2024 Mar; 14(1):6263.

  Application: Quant, Mice, Serum

- Sleep deprivation soon after recovery from synthetic torpor enhances tau protein dephosphorylation in the rat brain.

  Timna Hitrec, Fabio Squarcio, Emiliana Piscitiello, Matteo Cerri, Davide Martelli, Alessandra Occhinegro, Ludovico Taddei, Domenico Tupone, Roberto Amici, Marco Luppi.

  Journal of Comparative Physiology B 2023 Oct; [Epub]:0.

  Application: ELISA, Rat, Rat plasma

- Effects of Glutamine, Curcumin and Fish Bioactive Peptides Alone or in Combination on Intestinal Permeability in a Chronic-Restraint Stress Model.

  Ludovic D Langlois, Sarah Oddoux, Kanhia Auble, Paul Violette, Pierre Dechelotte, Antoine Noel, Moise Coeffier

  Int J Mol Sci 2023 Apr; 24(8):0.

- Synthetic torpor triggers a regulated mechanism in the rat brain, favoring the reversibility of Tau protein hyperphosphorylation.

  Fabio Squarcio, Timna Hitrec, Emiliana Piscitiello, Matteo Cerri, Catia Giovannini, Davide Martelli, Alessandra Occhinegro, Ludovico Taddei, Domenico Tupone, Roberto Amici, Marco Luppi

  Front Physiol 2023 Mar; 14:1129278.

- Chronic glucocorticoid treatment induces hepatic lipid accumulation and hyperinsulinaemia in part through actions on AgRP neurons.

  Erika Harno, Charlotte Sefton, Jonathan R Wray, Tiffany-Jayne Allen, Alison Davies, Anthony P Coll, Anne White

  Sci Rep 2021 Jul; 11(1):13776.

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- CPEB3-dowregulated Nr3c1 mRNA translation confers resilience to developing posttraumatic stress disorder-like behavior in fear-conditioned mice.

  Wen-Hsin Lu, Hsu-Wen Chao, Pei-Yi Lin, Shu-Hui Lin, Tzu-Hsien Liu, Hao-Wen Chen, Yi-Shuian Huang.

  Neuropsychopharmacology: Official Publication of the American College of Neuropsychopharmacology 2021 Aug; 46(9):1669.

  Application: Quant, Mouse, Mouse plasma

- Chronic unpredictable environmental stress impair biochemical and physiological homeostasis: Role in diabetes mellitus.

  Alok Raghav, Jamal Ahmad, Imrana Naseem

  Diabetes Metab Syndr 2019 Jul; 13(2):1021-1030.

- Low-Intensity Exercise in Mice Is Sufficient to Protect Retinal Function During Light-Induced Retinal Degeneration.

  Mees LM, Coulter MM, Chrenek MA, Motz CT, Landis EG, Boatright JH, Pardue MT.

  Investigative Ophthalmology & Visual Science 2019 Apr; 60(5):1328.

  Application: Quant, Mouse, Mouse serum

- Acylated ghrelin suppresses the cytokine response to lipopolysaccharide and does so independently of the hypothalamic-pituitary-adrenal axis.

  Ziko I, Sominsky L, De Luca SN, Lelngei F, Spencer SJ.

  Brain, Behavior, and Immunity 2018 Nov; 74:86.

  Application: ELISA, Rat, Medium collected from adrenal gland

- Glucocorticoids promote transition of ductal carcinoma in situ to invasive ductal carcinoma by inducing myoepithelial cell apoptosis.

  Zubeldia-Plazaola A, Recalde-Percaz L, Moragas N, Alcaraz M, Chen X, Mancino M, Fernández-Nogueira P, Prats de Puig M, Guzman F, Noguera-Castells A, López-Plana A, Enreig E, Carbó N, Almendro V, Gascón P, Bragado P, Fuster G.

  Breast cancer Research 2018 Jul; 20(1):65.

  Application: ELISA, Mouse, Plasma

- Carnitine acetyltransferase (Crat) in hunger-sensing AgRP neurons permits adaptation to calorie restriction.

  Reichenbach A, Stark R, Mequinion M, Lockie SH, Lemus MB, Mynatt RL, Luquet S, Andrews ZB.

  FASEB Journal 2018 Jun; fj201800634R.

  Application: Quant, Mouse, Mouse plasma

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- Carnitine acetyltransferase in Agrp neurons is required for the homeostatic adaptation to restricted feeding in male mice.

  Reichenbach A, Mequinion M, Bayliss JA, Lockie SH, Lemus MB, Mynatt RL, Stark R, Andrews ZB.

  Endocrinology 2018 Jun; 159(6):2473.

  Application: ELISA, Mouse, Plasma

- Involvement of serotonin 2A receptor activation in modulating medial prefrontal cortex and amygdala neuronal activation during novelty-exposure.

  Hervig ME, Jensen NC, Rasmussen NB, Rydbirk R, Olesen MV, Hay-Schmidt A, Pakkenberg B, Aznar S.

  Behavioural Brain Research 2017 Mar; 326:1.

  Application: Quant, Mouse, Mouse plasma

- CD301b(+) Mononuclear Phagocytes Maintain Positive Energy Balance through Secretion of Resistin-like Molecule Alpha.

  Yosuke Kumamoto, Joao Paulo G Camporez, Michael J Jurczak, Marya Shanabrough, Tamas Horvath, Gerald I Shulman, Akiko Iwasaki.

  Immunity 2016 Sep; 45(3):583.

  Application: Quant, Mouse, Mouse serum

- Des-acyl ghrelin and Ghrelin O-Acyltransferase regulate Hypothalamic-Pituitary-Adrenal axis activation and anxiety in response to acute stress.

  Stark R, Santos VV, Geenen B, Cabral A, Dinan T, Bayliss JA, Lockie SH, Reichenbach A, Lemus MB, Perello M, Spencer SJ, Kozicz T, Andrews ZB.

  Endocrinology 2016 Oct; 157(10):3946.

  Application: ELISA, Mouse, Plasma

- Disturbed diurnal rhythm of three classical phase markers in the chronic mild stress rat model of depression.

  Christiansen SL, Hoojgaard K, Wiborg O, Bouzinova EV.

  Neuroscience Research 2016 Mar; 110:43.

  Application: Quan, Rat, plasma from rat

- Lipopolysaccharide induced anxiety- and depressive-like behaviour in mice are prevented by chronic pre-treatment of esculetin.

  Sulakhiya K, Keshavlal GP, Bezbaruah BB, Dwivedi S, Gurjar SS, Munde N, Jangra A, Lahkar M, Gogoi R.

  Neuroscience Letters 2016 Jan; 611:106.

  Application: ELISA, Mouse, Plasma

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- Tris-(2,3-Dibromopropyl) Isocyanurate, a New Emerging Pollutant, Impairs Cognition and Provokes Depression-Like Behaviors in Adult Rats.

  Ye L, Hu Z, Wang H, Zhu H, Dong Z, Jiang W, Zhao H, Li N, Mi W, Wang W, Hu X.

  PloS One 2015 Oct; 10(10):e0140281.

  Application: ELISA, Rat, Serum

- Preconception diet or exercise intervention in obese fathers normalizes sperm microRNA profile and metabolic syndrome in female offspring.

  Nicole O McPherson, Julie A Owens, Tod Fullston, Michelle Lane

  Am J Physiol Endocrinol Metab 2015 May; 308(9):E805-21.

- Honokiol abrogates lipopolysaccharide-induced depressive like behavior by impeding neuroinflammation and oxido-nitrosative stress in mice.

  Sulakhiya K, Kumar P, Jangra A, Dwivedi S, Hazarika NK, Baruah CC, Lahkar M.

  European Journal of Pharmacology 2014 Oct; 744C:124.

  Application: ELISA, Mouse, Plasma

- Adenosine protects Sprague Dawley rats from high-fat diet and repeated acute restraint stress-induced intestinal inflammation and altered expression of nutrient transporters.

  Lee CY.

  Journal of Animal Physiology and Animal Nutrition 2015 Apr; 99(2):317.

  Application: ELISA, Rat, Plasma

- PPARγ ablation sensitizes proopiomelanocortin neurons to leptin during high-fat feeding.

  Long L, Toda C, Jeong JK, Horvath TL, Diano S.

  The Journal of Clinical Investigation 2014 Sep; 124(9):4017.

  Application: ELISA, Mouse, Serum

- Simvastatin treatment exerts antidepressant-like effect in rats exposed to chronic mild stress.

  Lin PY, Chang AY, Lin TK.

  Pharmacology, Biochemistry, and Behavior 2014 Sep; 124:174.

  Application: ELISA, Rat, Serum

- Effects of mild calorie restriction on anxiety and hypothalamic-pituitary-adrenal axis responses to stress in the male rat.

  Kenny R, Dinan T, Cai G, Spencer SJ.

  Physiological Reports 2014 Mar; 2(3):e00265.

  Application: ELISA, Rat, Plasma

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- Mice deficient in phosphodiesterase-4A display anxiogenic-like behavior.

  Hansen RT 3rd, Conti M, Zhang HT.

  Psychopharmacology 2014 Aug; 231(15):2941.

  Application: ELISA, Mouse, Urine

- Reflex control of inflammation by sympathetic nerves, not the vagus.

  Martelli D, Yao ST, McKinley MJ, McAllen RM.

  The Journal of Physiology 2014 Apr; 592(7):1677.

  Application: ELISA, Rat, Plasma

- Honokiol reverses depressive-like behavior and decrease in brain BDNF levels induced by chronic corticosterone injections in mice.

  Sathish Pitta, Bibin Baby Augustine, Eshvendar Reddy Kasala, Kunjbihari Sulakhiya, Vijay Ravindranath, Mangala Lahkar.

  Pharmacognosy Journal 2013 Sep; 5(5):211.

  Application: Quant, Mouse, Mouse serum

- Deletion of Selenoprotein M Leads to Obesity Without Cognitive Deficits.

  Pitts MW, Reeves MA, Hashimoto AC, Ogawa A, Kremer P, Seale LA, Berry MJ.

  The Journal of Biological Chemistry 2013 Sep; 288(36):26121.

  Application: Quant, Mouse, Mouse serum

- Housing under the pyramid reduces susceptibility of hippocampal CA3 pyramidal neurons to prenatal stress in the developing rat offspring.

  Murthy KD, George MC, Ramasamy P, Mustapha ZA.

  Indian Journal of Experimental Biology 2013 Dec; 51(12):1070.

  Application: ELISA, Rat, Plasma

- Neuroendocrine profile in a rat model of psychosocial stress: relation to oxidative stress.

  Colaianna M, Schiavone S, Zotti M, Tucci P, Morgese MG, Backdahl L, Holmdahl R, Krause KH, Cuomo V, Trabace L.

  Antioxidants & Redox Signaling 2013 Apr; 18(12):1385.

  Application: Quan, Rat, Plasma

- Ghrelin regulates the hypothalamic-pituitary-adrenal axis and restricts anxiety after acute stress.

  Spencer SJ, Xu L, Clarke MA, Lemus M, Reichenbach A, Geenen B, Kozicz T, Andrews ZB.

  Biological Psychiatry 2012 Sep; 72(6):457.

  Application: Quant, Mouse, Mouse plasma

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- Diet and exercise in an obese mouse fed a high-fat diet improve metabolic health and reverse perturbed sperm function.

  Palmer NO, Bakos HW, Owens JA, Setchell BP, Lane M.

  American Journal of Physiology. Endocrinology and Metabolism 2012 Apr; 302(7):E768.

  Application: ELISA, Mouse, Serum

- GH does not modulate the early fasting-induced release of free fatty acids in mice.

  Steyn FJ, Leong JW, Huang L, Tan HY, Xie TY, Nelson C, Waters MJ, Veldhuis JD, Epelbaum J, Chen C.

  Endocrinology 2012 Jan; 153(1):273.

  Application: ELISA, Mouse, Plasma

- Long-term continuous corticosterone treatment decreases VEGF receptor-2 expression in frontal cortex.

  Howell KR, Kutiyanawalla A, Pillai A.

  PLoS One 2011 May; 6(5):e20198.

  Application: ELISA, Mouse, Serum

- Anxiety and hypothalamic-pituitary-adrenal axis responses to psychological stress are attenuated in male rats made lean by large litter rearing.

  Bulfin LJ, Clarke MA, Buller KM, Spencer SJ.

  Psychoneuroendocrinology 2011 Aug; 36(7):1080.

  Application: Quant, Rat, Rat plasma

- Corticosteroid receptors, 11 beta-hydroxysteroid dehydrogenase, and the heart.

  Sheppard KE.

  Vitamins and Hormones 2003 Jan; 66:77.

- Corticosterone effects on BDNF expression in the hippocampus. Implications for memory formation.

  Schaaf MJ, De Kloet ER, Vreugdenhil E.

  Stress 2000 May; 3(3):201.

  Application: Quant, Rat, Hippocampus, Plasma

- Neurosteroids, brain damage, and mental illness.

  Herbert J.

  Experimental Gerontology 1998 Nov; 33(7-8):713.

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