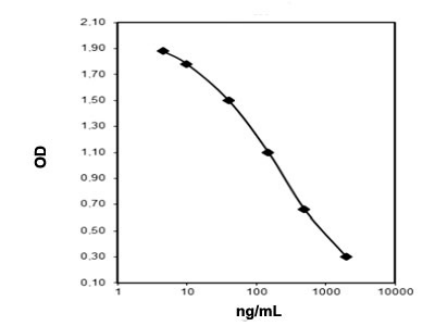
Dopamine ELISA Kit

Catalog # KA1887 Size 1 Kit

Applications



The standard curve is for the purpose of illustration only and should not be used to calculate unknowns. A standard curve should be generated each time the assay is performed.

Specification

Product Description	Dopamine ELISA Kit is an enzyme immunoassay for the quantitative determination of Dopamine in p lasma and urine.
Suitable Sample	Plasma, Urine
Sample Volume	Extracted urine samples: 25 uL, Extracted plasma samples: 50 uL
Extraction Sample Volume	Urine: 10 uL, Plasma: 300 uL
Detection Method	Colorimetric
Assay Type	Quantitative
Calibration Range	Urine: 4.8 to 2000 ng/mL, Plasma: 75 to 33,333 pg/mL
Limit of Detection	Urine: 2.5 ng/mL, Plasma: 49 pg/mL
Regulation Status	For research use only (RUO)
Quality Control Testing	Standard Curve The standard curve is for the purpose of illustration only and should not be used to calculate unknown s. A standard curve should be generated each time the assay is performed.
Storage Instruction	Store the kit at 4°C.

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Applications

- Quantification

Publication Reference

- Real Time Pulse Chase (RTPC) In-Cell NMR Spectroscopy Reveals Critical Metabolites in Subminute Metabolism of Undifferentiated and Differentiated Human Neuronal Cells.

  Spoorthy Sandras, Nicholas Sciolino, Sergey Reverdatto, David S Burz, Jayanti Pande, Ann Marie Schmidt, Ravichandran Ramasamy, Alexander Shekhtman.

  Analytical Chemistry 2026 Jun; 98(25):18373.

  Application: ELISA, Quant, Human, SH-SY5Y cells

- Maternal obesity and inadequate gestational weight gain disrupts placental dopaminergic signaling: impact on infant neurodevelopment.

  Nicole Soria-Reinoso, Arturo Flores-Pliego, Juan Mario Solis-Paredes, Arturo Alejandro Canul-Euan, Aurora Espejel-Nunez, Teresa Hernandez-Juarez, Sandra Martinez-Medina, Mariana Torres-Calapiz, Otilia Perichart-Perera, Carmen J Zamora-Sanchez, Edgar Barrientos-Galeana, Hector Borboa-Olivares, Guadalupe Estrada-Gutierrez, Ignacio Camacho-Arroyo

  Front Endocrinol (Lausanne) 2026 6; 170:1799454.

- Modeling embryonic heart vascular plexus development and sympathetic innervation on a human heart organoid.

  Mariana A Branco, Jacek Marzec, Mafalda Marques Nunes, Marta Bica, Ana Luísa Rayagra, Miguel F Tenreiro, Joaquim M S Cabral, Maria Margarida Diogo.

  iScience 2026 Feb; 29(3):115071.

  Application: ELISA, Quant, Human, Sympathetic neuron spheroids (SNSs) media

- Altered β-Adrenergic System, Cardiac Dysfunction, and Lethal Arrhythmia in a Rat Model of Metabolic Syndrome.

  Rommel Sánchez-Hernández., Daphne E Cruz-Villarreal., Alejandro Silva-Palacios., Alejandra-María Zúñiga-Muñoz., Elizabeth Soria-Castro., Carlos Sánchez-Garibay., Cecilia Zazueta., J Alberto Olivares-Reyes., José-Antonio Arias-Montaño., Angélica Rueda.

  International journal of molecular sciences 2025 Aug; 26(16):7989.

  Application: ELISA, Rat, Serum

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- Unraveling Predominantly Inattentive ADHD (ADHD-PI): Insights from Proteomic Analysis of the Striatum of Thyroid Hormone-Responsive Protein (THRSP)–Overexpressing Mice.

  Raly James Perez Custodio, Leandro Val Sayson, Ara Cho , Hyeryeon Jung, Darlene Mae Ortiz, Hyun Jun Lee, Emad Alyan, Edmund Wascher, Stephan Getzmann, Mikyung Kim, Kyeong-Man Kim, Eugene C Yi, Hee Jin Kim, Jae Hoon Cheong.

  Molecular neurobiology 2025 Oct; 62(10):13225.

  Application: Quant, Human, Brain

- Unraveling Predominantly Inattentive ADHD (ADHD-PI): Insights from Proteomic Analysis of the Striatum of Thyroid Hormone-Responsive Protein (THRSP)-Overexpressing Mice.

  Raly James Perez Custodio, Leandro Val Sayson, Ara Cho, Hyeryeon Jung, Darlene Mae Ortiz, Hyun Jun Lee, Emad Alyan, Edmund Wascher, Stephan Getzmann, Mikyung Kim, Kyeong-Man Kim, Eugene C Yi, Hee Jin Kim, Jae Hoon Cheong.

  Molecular Neurobiology 2025 Jun; 0:0.

  Application: ELISA, Quant, Mice, Striatal tissue

- Heart Rate Variability: A Psychophysiological Factor Related to Both Regular Physical Activity and Eudaimonic Well-Being Among Young Adults.

  Yoshino Murakami, Daisuke Goto, Hayato Tsukamoto, Kazuho Yamaura, Takeshi Hashimoto.

  Brain and behavior 2025 Jan; 15(1):e70284.

  Application: Quant, Human, Plasma

- The neuropharmacological properties of α-pyrrolidinobutiothiophenone, a new synthetic cathinone, in rodents; role of the dopaminergic system.

  Oc-Hee Kim, Kyung Oh Jeon, Gihyeon Kim, Choon-Gon Jang, Seong Shoon Yoon, Eun Young Jang

  Br J Pharmacol 2024 Sep; 181(18):3462-3482.

- Ameliorating effects of Acanthopanax koreanum extract and components on nicotine dependence and withdrawal symptoms.

  Hyun Jun Lee, Darlene Mae Ortiz, Leandro Val Sayson, Mikyung Kim, Jae Hoon Cheong, Hee Jin Kim.

  Addiction Biology 2024 Feb; 29(2):e13360.

  Application: ELISA, Mice, Mice Nacc

- Zinc improves sexual performance and erectile function by preventing penile oxidative injury and upregulating circulating testosterone in lead-exposed rats.

  Elizabeth Enohnyket Besong, Tunmise Maryanne Akhigbe, Precious Jesutofunmi Ashonibare, Abimbola Ayoola Oladipo, Jacinta Nkechi Obimma, Moses Agbomhere Hamed, Damilare Hakeem Adeyemi, Roland Eghoghosoa Akhigbe.

  Redox Report : Communications in Free Radical Research 2023 Dec; 28(1):2225675.

  Application: Quant, Rat, Rat serum

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- Sodium acetate abates lead-induced sexual dysfunction by upregulating testosterone-dependent eNOS/NO/cGMP signaling and activating Nrf2/HO-1 in male Wistar rat.

  E E Besong, P J Ashonibare, T M Akhigbe, J N Obimma, R E Akhigbe.

  Naunyn-Schmiedeberg's Archives of Pharmacology 2023 Sep; [Epub].

  Application: ELISA, Rat, Rat plasma

- Natural killer cells and innate lymphoid cells 1 tune anxiety-like behavior and memory in mice via interferon-γ and acetylcholine.

  Stefano Garofalo, Germana Cocozza, Alessandro Mormino, Giovanni Bernardini, Eleonora Russo, Donald Ielpo, Diego Andolina, Rossella Ventura, Katiuscia Martinello, Massimiliano Renzi, Sergio Fucile, Mattia Laffranchi, Eva Piano Mortari, Rita Carsetti, Giuseppe Sciumè, Silvano Sozzani, Angela Santoni, Marie-Eve Tremblay, Richard M Ransohoff, Cristina Limatola.

  Nature Communications 2023 May; 14(1):3103.

  Application: ELISA, Mouse, Brain

- Deletion of Cryab increases the vulnerability of mice to the addiction-like effects of the cannabinoid JWH-018 via upregulation of striatal NF-κB expression.

  Leandro Val Sayson, Darlene Mae Ortiz, Hyun Jun Lee, Mikyung Kim, Raly James Perez Custodio, Jaesuk Yun, Chae Hyeon Lee, Yong Sup Lee, Hye Jin Cha, Jae Hoon Cheong, Hee Jin Kim

  Front Pharmacol 2023 Apr; 14:1135929.

- Circulating Dopamine Is Regulated by Dietary Glucose and Controls Glucagon-like 1 Peptide Action in White Adipose Tissue.

  Gabriela Tavares, Daniela Rosendo-Silva, Flávia Simões, Hans Eickhoff, Daniela Marques, Joana F Sacramento, Adriana M Capucho, Raquel Seiça, Sílvia V Conde, Paulo Matafome.

  Int J Mol Sci. 2023 Jan 27;24(3):2464. doi: 10.3390/ijms24032464. 2023 Jan; 24(3):2464.

  Application: ELISA, Rat, Plasma

- Genetically engineered mesenchymal stem cells with dopamine synthesis for Parkinson's disease in animal models.

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  NPJ Parkinson's Disease 2022 Dec; 8(1):175.

  Application: ELISA, Human, Mounkey, Rat, MSC cells, Cerebrospinal fluid

- Identification of minimum essential therapeutic mixtures from cannabis plant extracts by screening in cell and animal models of Parkinson's disease.

  Michael G Morash, Jessica Nixon, Lori M N Shimoda, Helen Turner, Alexander J Stokes, Andrea L Small-Howard, Lee D Ellis

  Front Pharmacol 2022 Oct; 13:907579.

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- Challenge exposure to whole cigarette smoke condensate upregulates locomotor sensitization by stimulating α4β2 nicotinic acetylcholine receptors in the nucleus accumbens of rats.

  Ji Sun Kim, Oc-Hee Kim, In Soo Ryu, Yong-Hyun Kim, Kyung Oh Jeon, Li-Na Lim, Tae Wan Kim, Sumin Sohn, Sunghyun Kim, Jeong-Wook Seo, Eun Sang Choe, Eun Young Jang.

  Pharmacology, Biochemistry, and Behavior 2022 Oct; 220:173469.

  Application: Quant, Rat, Rat nucleus accumbens

- L-Arginine reverses maternal and pre-pubertal codeine exposure-induced sexual dysfunction via upregulation of androgen receptor gene and NO/cGMP signaling.

  Roland Eghoghosoa Akhigbe, Oladele A Afolabi, Ayodeji F Ajayi.

  PLoS One 2022 Sep; 17(9):e0274411.

  Application: Quant, Rat, Rat brain

- Repeated social defeat stress exacerbates lipopolysaccharide-induced behavioural deficits in mice: ameliorative role of Chrysophyllum albidum fruit extract through anti-neuroinflammation, antioxidant and neurochemical balance.

  Abayomi M Ajayi, Benneth Ben-Azu, Gracious E Ogunkolade, John Melete, Ayomide T Oyedele, Solomon Umukoro.

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  Application: Quant, Mouse, Brain tissue

- Prenatal Hypoxia Affects Nicotine Consumption and Withdrawal in Adult Rats via Impairment of the Glutamate System in the Brain.

  Viktor A Stratilov, Oleg Vetrovoy, Ekaterina I Tyulkova

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- Iron commensalism of mesenchymal glioblastoma promotes ferroptosis susceptibility upon dopamine treatment.

  Vu T A Vo, Sohyun Kim, Tuyen N M Hua, Jiwoong Oh, Yangsik Jeong.

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  Application: Quant, Human, proneural GBM stem cell conditioned medium

- Prenatal Hypoxia Affects Nicotine Consumption and Withdrawal in Adult Rats via Impairment of the Glutamate System in the Brain.

  Viktor A Stratilov, Oleg V Vetrovoy, Ekaterina I Tyulkova.

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  Application: Quant, Rat, Rat ventral striatum, ventral tegmental area (VTA)

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- Nicotine rather than non-nicotine substances in 3R4F WCSC increases behavioral sensitization and drug-taking behavior in rats.

  Sunghyun Kim, Sumin Sohn, In Soo Ryu, Ju Hwan Yang, Oc-Hee Kim, Ji Sun Kim, Yong-Hyun Kim, Eun Young Jang, Eun Sang Choe.

  Nicotine & Tobacco Research 2022 Mar; ntac063.

  Application: Quant, Rat, Brain

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  H S Alamri.

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  Application: ELISA (Dopamine), Rat, Urine

- Effects of 16 Weeks of Taekwondo Training on the Cerebral Blood Flow Velocity, Circulating Neurotransmitters, and Subjective Well-Being of Obese Postmenopausal Women.

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- Effects of β-Phenylethylamine on Psychomotor, Rewarding, and Reinforcing Behaviors and Affective State: The Role of Dopamine D1 Receptors.

  In Soo Ryu, Oc-Hee Kim, Ji Sun Kim, Sumin Sohn, Eun Sang Choe, Ri-Na Lim, Tae Wan Kim, Joung-Wook Seo, Eun Young Jang

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  Arvie Abiero, Raly James Perez Custodio, Chrislean Jun Botanas, Darlene Mae Ortiz, Leandro Val Sayson, Mikyung Kim, Hyun Jun Lee, Seolmin Yoon, Yong Sup Lee, Jae Hoon Cheong, Hee Jin Kim.

  Neurochemistry International 2021 Jan; 144:104962.

  Application: Quant, Mouse, Mouse brain

- Influence of serum concentration in retinoic acid and phorbol ester induced differentiation of SH-SY5Y human neuroblastoma cell line.

  Kasthuri Bai Magalingam, Ammu Kutty Radhakrishnan, Sushela Devi Somanath, Shadab Md, Nagaraja Haleagrahara.

  Molecular Biology Reports 2020 Nov; 47(11):8775.

  Application: Quant, Human, SH-SY5Y cells

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- Developmental deficits and early signs of neurodegeneration revealed by PD patient derived dopamine neurons.

  Fang Luo, Sushan Luo, Wenjing Qian, Lin Zhang, Chen Chen, Meimei Xu, Guangling Wang, Zhongfeng Wang, Jian Wang, Wenyuan Wang.

  Stem Cell Research 2020 Dec; 49:102027.

  Application: Quant, Human, Patient-derived dopamine neurons

- Two newly-emerging substituted phenethylamines MAL and BOD induce differential psychopharmacological effects in rodents.

  Raly James Perez Custodio, Leandro Val Sayson, Chrislean Jun Botanas, Arvie Abiero, Mikyung Kim, Hyun Jun Lee, Hye Won Ryu, Yong Sup Lee, Hee Jin Kim, Jae Hoon Cheong.

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  Application: Quant, Mouse, Plasma

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  Application: Quant, Rat, PC-12 cells

- Curcumin attenuates copper-induced oxidative stress and neurotoxicity in Drosophila melanogaster.

  Amos O Abolaji, Kehinde D Fasae, Chizim E Iwezor, Michael Aschner, Ebenezer O Farombi.

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  Application: Quant, Fly, Fly head homogenized-supernatant

- 4-MeO-PCP and 3-MeO-PCMo, new dissociative drugs, produce rewarding and reinforcing effects through activation of mesolimbic dopamine pathway and alteration of accumbal CREB, deltaFosB, and BDNF levels.

  Abiero A, Botanas CJ, Custodio RJ, Sayson LV, Kim M, Lee HJ, Kim HJ, Lee KW, Jeong Y, Seo JW, Ryu lS, Lee YS, Cheong JH.

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  Application: Quant, Mouse, Mouse brains, Mouse nucleus accumbens

- Age-Related Dopaminergic Innervation Augments T Helper 2-Type Allergic Inflammation in the Postnatal Lung.

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  Immunity 2019 Dec; 51(6):1102.

  Application: Quant, Mouse, Mouse lungs

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- New insights into weight management by orlistat in comparison with cinnamon as a natural lipase inhibitor.

  Khedr NF, Ebeid AM, Khalil RM.

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  Application: Quant, Human, Human serum

- Rehmannioside A attenuates cognitive deficits in rats with vascular dementia (VD) through suppressing oxidative stress, inflammation and apoptosis.

  Sun M, Shen X, Ma Y.

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  Application: Quant, Rat, Rat hippocampus

- Methyl jasmonate ameliorates rotenone-induced motor deficits in rats through its neuroprotective activity and increased expression of tyrosine hydroxylase immunopositive cells.

  Alabi AO, Ajayi AM, Ben-Azu B, Omorobge O, Umukoro S.

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  Application: ELISA, Rat, Brain extracted

- Dopamine and Serotonin Modulate Free Amino Acids Production and Na+/K+ Pump Activity in Chinese Mitten Crab Eriocheir sinensis Under Acute Salinity Stress.

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- Effects of catecholamines on secretion of interferon tau and expression of genes for synthesis of polyamines and apoptosis by ovine trophectoderm.

  Mohammed A Elmetwally, Yasser Lenis, Wanjin Tang, Guoyao Wu, Fuller W Bazer

  Biol Reprod 2018 Sep; 99(3):611-628.

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  Lee HT, Lee KI, Lin HC, Lee TS.

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  Application: ELISA, Mouse, Brain lysates

- Tau clearance improves astrocytic function and brain glutamate-glutamine cycle.

  Hebron ML, Javidnia M, Moussa CE.

  Journal of the Neurological Sciences 2018 Aug; 391:90.

  Application: Quant, Mouse, Mouse brains

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  Liu Z, Wang L, Yan Y, Zheng Y, Ge W, Li M, Wang W, Song X, Song L.

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  Application: ELISA, Oyster, Larvae

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  Application: Quant, Mouse, Mouse cerebral cortex

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  Application: Quan, Sheep, oTr1 cell

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  Application: ELISA, Rat, Brain striatum extrected

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  Application: ELISA, Mouse, Dialysate extracted

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  Application: ELISA, Mouse, Plasma

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  Application: ELISA, Human, Brain, Mesencephalon

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- Nilotinib reverses loss of dopamine neurons and improves motor behavior via autophagic degradation of α-synuclein in Parkinsons disease models.

  Hebron ML, Lonskaya I, Moussa CE.

  Human Molecular Genetics 2013 Aug; 22(16):3315.

  Application: ELISA, Mouse, Brain extracted

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