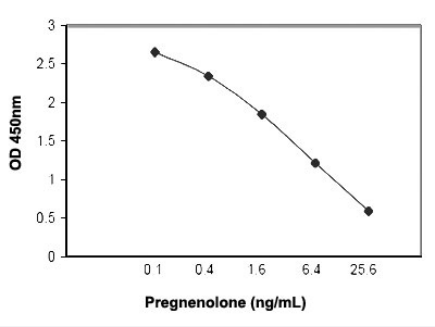
Pregnenolone ELISA Kit

Catalog # KA1912 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	Pregnenolone ELISA Kit is an enzyme immunoassay for the quantitative determination of pregnenolone in human serum.
Suitable Sample	Serum
Sample Volume	50 uL
Label	HRP-conjugate
Detection Method	Colorimetric
Assay Type	Quantitative
Limit of Detection	0.05 ng/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 unknowns. 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

- A cell-intrinsic glucocorticoid biosynthesis and sensing circuit maintains a homeostatic Th17 cell state.

  Dandan Yang, Linglin Huang, Hanning Cheng, Nandini Acharya, Davide Mangani, Yong Hu, Dan Hu, Alissa J Nelson, Jian Min Ren, Vicky Yang, Junrong Xia, Linfeng Le, Yifan Cai, Yufan Wu, Alexandra Schnell, Rajesh K Krishnan, Shrishti Saxena, Mariann Polgar-Turcsanyi, Tanuja Chitnis, Matthew P Stokes, Clare M Baecher-Allan, Raymond A Sobel, Vijay K Kuchroo, Ana C Anderson.

  Immunity 2026 Jun; 0:0.

  Application: ELISA, Quant, Mice, TH17 cell

- Perturbing local steroidogenesis to improve breast cancer immunity.

  Qiuchen Zhao, Jhuma Pramanik, Yongjin Lu, Natalie Z M Homer, Charlotte J Imianowski, Baojie Zhang, Muhammad Iqbal, Sanu Korumadathil Shaji, Andrew Conway Morris, Rahul Roychoudhuri, Klaus Okkenhaug, Pengfei Qiu, Bidesh Mahata.

  Nature communications 2025 Apr; 16(1):3945.

  Application: Quant ELISA, Mouse, Myeloid cells, peritoneal mast cells (PMC)

- Drug repurposing reveals posaconazole as a CYP11A1 inhibitor enhancing anti-tumor immunity.

  Jhuma Pramanik, Sanu Korumadathil Shaji, Megan Zaman, Bethany Brown, Baojie Zhang, Yumi Yamashita-Kanemaru, Natalie Z M Homer, Hosni A M Hussein, Qiuchen Zhao, Klaus Okkenhaug, Rahul Roychoudhuri, Abhik Mukhopadhyay, Bidesh Mahata.

  iScience 2025 Apr; 28(5):112448.

  Application: Quant, Mouse, H295R, TH2, Y1 cells

- Germline-somatic liaison dictates cancer subtype via de novo steroid biosynthesis.

  Paola Gasperini, Alessandro Alaimo, Blerta Stringa, Yoon-Mi Chung, Yari Ciani, Francesca Lorenzin, Giulia Fracassi, Yanis Zekri, Francesco Orlando, Orsetta Quaini, Sebastian Gregoricchio, Gianluca Petris, Antonio Casini, Christopher E Barbieri, Wilbert Zwart, Anna Cereseto, Nima Sharifi, Andrea Lunardi, Francesca Demichelis.

  Cancer discovery 2025 Jan; [Epub]:0.

  Application: Quant, Human, PC3 cells

- DNA methylation of Ad4BP/SF-1 suppresses Cyp11a1 and StAR transcripts in C2C12 myoblasts.

  Jumpei Fujiki, Naoyuki Maeda, Kosuke Yamaguchi, Yuya Ohtsuki, Hidetomo Iwano.

  Molecular and Cellular Endocrinology 2024 Nov; 593:112336.

  Application: ELISA, Quant, Mouse, C2C12 myoblasts supernatants

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- Mitochondrial cytochrome P450 1B1 is involved in pregnenolone synthesis in human brain cells.

  Yiqi Christina Lin, Garett Cheung, Zeyu Zhang, Vassilios Papadopoulos.

  The Journal of Biological Chemistry 2023 Aug; 299(8):105035.

  Application: ELISA, Human, H295R, MGM-1 cells

- Delivery of low-density lipoprotein from endocytic carriers to mitochondria supports steroidogenesis.

  Yu-Xia Zhou, Jian Wei, Gang Deng, Ao Hu, Pu-Yu Sun, Xiaolu Zhao, Bao-Liang Song, Jie Luo.

  Nature Cell Biology 2023 Jul; 25(7):937.

  Application: ELISA, Human, H295R cells

- The ultrastructural function of MLN64 in the late endosome-mitochondria membrane contact sites in placental cells.

  Atsuki Nara, Akimi Inoue, Yoshitaka Aoyama, Takashi Yazawa.

  Experimental Cell Research 2023 May; 429(2):113668.

  Application: ELISA, Human, JEG3 cells

- Longitudinal assessment of adrenocortical steroid and steroid precursor response to illness in hospitalized foals.

  K Dembek, K Timko, C Moore, L Johnson, M Frazer, B Barr, R Toribio.

  Domestic Animal Endocrinology 2022 Aug; 82:106764.

  Application: Quant, Human, Human serum

- Immune modulatory effects of progesterone on oxLDL-induced trained immunity in monocytes.

  Laszlo A Groh, Dagmar E Verel, Charlotte D C C van der Heijden, Vasiliki Matzaraki, Simone J C F M Moorlag, L Charlotte de Bree, Valerie A C M Koeken, Vera P Mourits, Samuel T Keating, Jelmer H van Puffelen, Leo A B Joosten, Mihai G Netea, Niels P Riksen

  J Leukoc Biol 2022 8; 112(2):279-288.

- The neurosteroid pregnenolone is synthesized by a mitochondrial P450 enzyme other than CYP11A1 in human glial cells.

  Yiqi Christina Lin, Garett Cheung, Edith Porter, Vassilios Papadopoulos.

  The Journal of Biological Chemistry 2022 Jun; 298(7):102110.

  Application: Quant, Human, MGM-1, MGM-3, HMC3, H295R-S1, NHA cells culuture supernatant

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- Homozygous Mutation of gsdf Causes Infertility in Female Nile Tilapia (Oreochromis niloticus).

  Dong-Neng Jiang, You-Xing Peng, Xing-Yong Liu, Umar Farouk Mustapha, Yuan-Qing Huang, Hong-Juan Shi, Ming-Hui Li, Guang-Li Li, De-Shou Wang.

  Front Endocrinol (Lausanne). 2022 Feb 15:13:813320. doi: 10.3389/fendo.2022.813320. eCollection 2022 2022 Feb; 13:8133320.

  Application: Quant, Fish, Serum

- New inhibitor targeting Acyl-CoA synthetase 4 reduces breast and prostate tumor growth, therapeutic resistance and steroidogenesis.

  Ana F Castillo, Ulises D Orlando, Paula M Maloberti, Jesica G Prada, Melina A Dattilo, Angela R Solano, María M Bigi, Mayra A Ríos Medrano, María T Torres, Sebastián Indo, Graciela Caroca, Hector R Contreras, Belkis E Marelli, Facundo J Salinas, Natalia R Salvetti, Hugo H Ortega, Pablo Lorenzano Menna, Sergio Szajnman, Daniel E Gomez, Juan B Rodríguez, Ernesto J Podesta.

  Cellular and Molecular Life Sciences : CMLS 2021 Mar; 78(6):2893.

  Application: Quant, Mouse, Plasma

- Endogenous Glucocorticoid Signaling Regulates CD8 + T Cell Differentiation and Development of Dysfunction in the Tumor Microenvironment.

  Nandini Acharya, Asaf Madi, Huiyuan Zhang, Max Klapholz, Giulia Escobar, Shai Dulberg, Elena Christian, Michelle Ferreira, Karen O Dixon, Geoffrey Fell, Katherine Tooley, Davide Mangani, Junrong Xia, Meromit Singer, Marcus Bosenberg, Donna Neuberg, Orit Rozenblatt-Rosen, Aviv Regev, Vijay K Kuchroo, Ana C Anderson.

  Immunity 2020 Sep; 53(3):658.

  Application: Quant, Mouse, Mouse spleen

- Tumors induce de novo steroid biosynthesis in T cells to evade immunity.

  Bidesh Mahata, Jhuma Pramanik, Louise van der Weyden, Krzysztof Polanski, Gozde Kar, Angela Riedel, Xi Chen, Nuno A Fonseca, Kousik Kundu, Lia S Campos, Edward Ryder, Graham Duddy, Izabela Walczak, Klaus Okkenhaug, David J Adams, Jacqueline D Shields, Sarah A Teichmann.

  Nature Communications 2020 Jul; 11(1):3588.

  Application: Quant, Mouse, Mouse CD45+ leukocytes

- Multiple adrenocortical steroid response to administration of exogenous adrenocorticotropic hormone to hospitalized foals.

  Dembek KA, Johnson LM, Timko KJ, Minuto JS, Hart KA, Barr BS, Toribio RE.

  Journal of Veterinary Internal Medicine 2019 Jul; 33(4):1766.

  Application: Quant, Horse, Horse serum

- Regulation of steroid hormones in the placenta and serum of women with preeclampsia.

  Ye Young Shin, Jea Sic Jeong, Mee-Na Park, Jae-Eon Lee, Sung-Min An, Wan-Seob Cho, Seung Chul Kim, Beum-Soo An, Kyu-Sup Lee

  Mol Med Rep 2018 Feb; 17(2):2681-2688.

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- Follicle-stimulating hormone promotes the transformation of cholesterol to estrogen in mouse adipose tissue.

  Cui H, Zhao G, Wen J, Tong W.

  Biochemical and Biophysical Research Communications 2018 Jan; 495(3):2331.

  Application: Quant, Mouse, AF, 3T3-L1 cells

- The Fungus Trichoderma Regulates Submerged Conidiation Using the Steroid Pregnenolone.

  Lin H, Travisano M, Kazlauskas RJ.

  ACS Chemical Biology 2016 Sep; 11(9):2568.

  Application: ELISA, Fungi, Trichoderma citrinoviride culture supernatant

- Differential efficacy of the TSPO ligands etifoxine and XBD-173 in two rodent models of Multiple Sclerosis.

  Ravikumar B, Crawford D, Dellovade T, Savinainen A, Graham D, Liere P, Oudinet JP, Webb M, Hering H.

  Neuropharmacology 2016 Sep; 108:229.

  Application: ELISA, Rat, C6 cells, Astrocytes

- Single-Cell RNA Sequencing Reveals T Helper Cells Synthesizing Steroids De Novo to Contribute to Immune Homeostasis.

  Mahata B, Zhang X, Kolodziejczyk AA, Proserpio V, Haim-Vilmovsky L, Taylor AE, Hebenstreit D, Dingler FA, Moignard V, Gottgens B, Arlt W, McKenzie AN, Teichmann SA.

  Cell Reports 2014 May; 7(4):1130.

  Application: C-ELISA, Mouse, Supernatants collected from CD4+ T cells

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