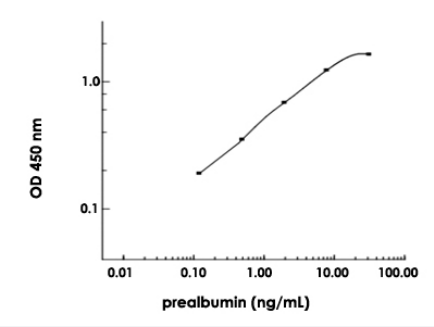
TTR (Human) ELISA Kit

Catalog # KA0495 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	TTR (Human) ELISA Kit is a sandwich enzyme immunoassay for the quantitative measurement of human TTR.
Suitable Sample	Cell Culture Samples, CSF, Milk, Plasma, Saliva, Serum, Urine
Sample Volume	50 uL
Label	Peroxidase-conjugated
Detection Method	Colorimetric
Assay Type	Quantitative
Calibration Range	0.122 to 31.25 ng/mL
Reactivity	Human
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

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- Quantification

Gene Info — TTR

Entrez GeneID	7276
Gene Name	TTR
Gene Alias	HsT2651, PALB, TBPA
Gene Description	transthyretin
Omim ID	176300
Gene Ontology	Hyperlink
Gene Summary	This gene encodes transthyretin, one of the three prealbumins including alpha-1-antitrypsin, transthyretin and orosomucoid. Transthyretin is a carrier protein; it transports thyroid hormones in the plasma and cerebrospinal fluid, and also transports retinol (vitamin A) in the plasma. The protein consists of a tetramer of identical subunits. More than 80 different mutations in this gene have been reported; most mutations are related to amyloid deposition, affecting predominantly peripheral nerve and/or the heart, and a small portion of the gene mutations is non-amyloidogenic. The diseases caused by mutations include amyloidotic polyneuropathy, euthyroid hyperthyroxinaemia, amyloidotic vitreous opacities, cardiomyopathy, oculoleptomeningeal amyloidosis, meningocerebrovascular amyloidosis, carpal tunnel syndrome, etc. [provided by RefSeq
Other Designations	prealbumin, amyloidosis type I|thyroxine-binding prealbumin

Publication Reference

- Development and Validation of a Novel LC-MS/MS-Based Proteomics Method for Quantitation of Retinol Binding Protein 4 (RBP4) and Transthyretin (TTR).

  Aprajita S Yadav, Katya B Rubinow, Alex Zelter, Aurora K Authement, Bryan R Kestenbaum, John K Amory, Nina Isoherranen

  J Proteome Res 2025 Oct; 24(10):5266-5276.

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- Relationship between dietary protein intake and serum essential free amino acid concentrations in Japanese pregnant women: an observational study.

  Takuya Shibasaki, Hirohiko Nakamura, Takuya Kamimura, Fuka Tabata, Satomi Kawakami, Mayumi Inubashiri, Masayoshi Hosaka, Kiwamu Noshiro, Takeshi Umazume, Kazuhiro Miyaji.

  BMC pregnancy and childbirth 2025 Aug; 25(1):852.

  Application: Quant, Human, Serum

- Development and Validation of a Novel LC-MS/MS Based Proteomics Method for Quantitation of Retinol Binding Protein 4 (RBP4) and Transthyretin (TTR).

  Aprajita S Yadav, Katya B Rubinow, Alex Zelter, Aurora K Authement, Bryan R Kestenbaum, John K Amory, Nina Isoherranen.

  bioRxiv : the Preprint Server for Biology 2025 Jul; 0:0.

  Application: ELISA, Quant, Human, Plasma

- A lower ratio of reduced to total albumin in serum is associated with protein nutritional status of pregnant women in Japan.

  Fuka Tabata, Yasuaki Wada, Takuya Shibasaki, Satomi Kawakami, Mayumi Inubashiri, Masayoshi Hosaka, Kiwamu Noshiro, Takeshi Umazume, Kazuhiro Miyaji.

  Nutrition Research (New York, N.Y.) 2023 Mar; 114:1.

  Application: Quant, Human, Human serum

- Plasma Retinoid Concentrations Are Altered in Pregnant Women.

  Lindsay C Czuba, Emily E Fay, Jeffrey LaFrance, Chase K Smith, Sara Shum, Sue L Moreni, Jennie Mao, Nina Isoherranen, Mary F Hebert

  Nutrients 2022 Mar; 14(7):0.

- Ligand conjugate SAR and enhanced delivery in NHP.

  Richard James Holland, Kieu Lam, Xin Ye, Alan D Martin, Mark C Wood, Lorne Palmer, David Fraser, Kevin McClintock, Sara Majeski, Agnes Jarosz, Amy C H Lee, Emily P Thi, Adam Judge, James Heyes.

  Molecular Therapy 2021 Oct; 29(10):2910.

  Application: Quant, Mouse, Mouse plasma

- Amyloid deposition in a mouse model humanized at the transthyretin and retinol-binding protein 4 loci.

  Xiangshun Li, Yanyi Lyu, Jingling Shen, Yanshuang Mu, Lixia Qiang, Li Liu, Kimi Araki, Bruno P Imbimbo, Ken-Ichi Yamamura, Shoude Jin, Zhenghua Li

  Lab Invest 2018 Apr; 98(4):512-524.

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- Effects of Parenteral Amino Acid Administration on the Postoperative Nutritional Status and Wound Healing of Protein-Malnourished Rats.

  Wada A, Sonoda C, Makino Y, Hama Y, Nagahama A, Harada D.

  Journal of Nutritional Science and Vitaminology 2018 Jan; 64:34.

  Application: ELISA, Rat, Plasma

- Pharmacological Stimulation of Phagocytosis Enhances Amyloid Plaque Clearance; Evidence from a Transgenic Mouse Model of ATTR Neuropathy.

  Eleni Fella, Kleitos Sokratous, Revekka Papacharalambous, Kyriacos Kyriacou, Joy Phillips, Sam Sanderson, Elena Panayiotou, Theodoros Kyriakides

  Front Mol Neurosci 2017 May; 10:138.

- Transthyretin represses neovascularization in diabetic retinopathy.

  Shao J, Yao Y.

  Molecular Vision 2016 Oct; 22:1188.

  Application: Quan, Human, Human retinal microvascular endothelial cells

- Repression of retinal microvascular endothelial cells by transthyretin under simulated diabetic retinopathy conditions.

  Shao J, Yao Y.

  International Journal of Ophthalmology. 2016 Jun; 9(6):809.

  Application: ELISA, Human, Retinal pigment epithelial cells

- Chronic Kidney Disease Alters Vitamin A Homeostasis via Effects on Hepatic RBP4 Protein Expression and Metabolic Enzymes.

  Jing J, Isoherranen N, Robinson-Cohen C, Petrie I, Kestenbaum BR, Yeung CK.

  Clinical and Translational Science 2016 Aug; 9(4):207.

  Application: ELISA, Human, Plasma

- CHF5074 (CSP-1103) stabilizes human transthyretin in mice humanized at the transthyretin and retinol-binding protein loci.

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  Application: ELISA, Mouse, Serum

- Terminal galactose residues on transferrin are increased in midlife adults compared to young adults.

  Dunston CR, Choudhury K, Griffiths HR.

  Proteomics 2012 Nov; 12(21):3147.

  Application: Quant, Human, Human plasma

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- Prealbumin, mortality, and cause-specific hospitalization in hemodialysis patients.

  Chertow GM, Goldstein-Fuchs DJ, Lazarus JM, Kaysen GA.

  Kidney International 2005 Dec; 68(6):2794.

  Application: Quant, Human, Serum from hemodialysis patients

- Prealbumin: a marker for nutritional evaluation.

  Beck FK, Rosenthal TC.

  American Family Physician 2002 Apr; 65(8):1575.

- Transthyretin: a review from a structural perspective.

  Hamilton JA, Benson MD.

  Cellular and Molecular Life Sciences 2001 Sep; 58(10):1491.

  Application: Quant, Human, Human cerebrospinal fluid

Disease

- Alzheimer disease
- Amyloid Neuropathies
- Amyloidosis
- Cardiovascular Diseases
- Diabetes Mellitus
- Edema
- Genetic Predisposition to Disease
- Heart Diseases
- Kidney Failure
- Schizophrenia

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