abcam

Product datasheet

Human PreAlbumin ELISA Kit (Transthyretin) ab108895

7 References 3 Images

Overview

Product name Human PreAlbumin ELISA Kit (Transthyretin)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				5.7%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				9.4%

Sample type Saliva, Milk, Urine, Serum, Plasma, Cerebral Spinal Fluid

Assay type Sandwich (quantitative)

Sensitivity = 75 pg/ml

Range 0.122 ng/ml - 31.25 ng/ml

Recovery = 98 %

Assay time 4h 00m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Human PreAlbumin ELISA kit ((Transthyretin) is designed for the quantitative measurement of PreAlbumin concentrations in plasma, serum, milk, urine, saliva, CSF, cell culture, cell lysate, and tissue samples.

A PreAlbumin specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a PreAlbumin specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of PreAlbumin captured in plate.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

Platform Microplate

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Human PreAlbumin Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
PreAlbumin Microplate (12 x 8 well strips)	1 unit
PreAlbumin Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

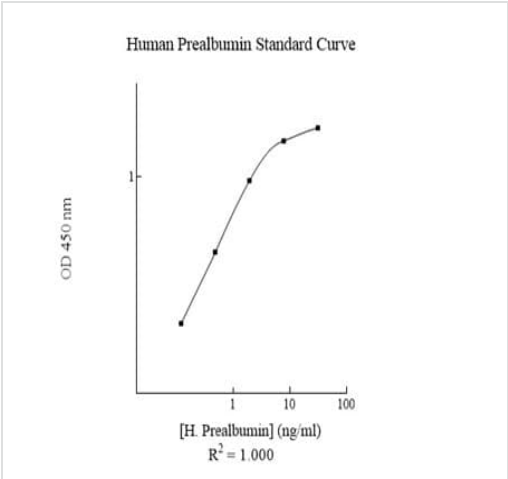
Function Thyroid hormone-binding protein. Probably transports thyroxine from the bloodstream to the brain.

Tissue specificity Detected in serum and cerebrospinal fluid (at protein level). Highly expressed in choroid plexus epithelial cells. Detected in retina pigment epithelium and liver.

Involvement in disease Defects in TTR are the cause of amyloidosis transthyretin-related (AMYL-TTR) [MIM:105210]. A hereditary generalized amyloidosis due to transthyretin amyloid deposition. Protein fibrils can form in different tissues leading to amyloid polyneuropathies, amyloidotic cardiomyopathy, carpal tunnel syndrome, systemic senile amyloidosis. The disease includes leptomeningeal amyloidosis that is characterized by primary involvement of the central nervous system. Neuropathologic examination shows amyloid in the walls of leptomeningeal vessels, in pia arachnoid, and subpial deposits. Some patients also develop vitreous amyloid deposition that leads to visual impairment (oculoleptomeningeal amyloidosis). Clinical features include seizures, stroke-like episodes, dementia, psychomotor deterioration, variable amyloid deposition in the vitreous humor.
Defects in TTR are a cause of hyperthyroxinemia dystransthyretinemic euthyroidal (HTDE) [MIM:145680]. It is a condition characterized by elevation of total and free thyroxine in healthy, euthyroid persons without detectable binding protein abnormalities.
Defects in TTR are a cause of carpal tunnel syndrome type 1 (CTS1) [MIM:115430]. It is a condition characterized by entrapment of the median nerve within the carpal tunnel. Symptoms include burning pain and paresthesias involving the ventral surface of the hand and fingers which may radiate proximally. Impairment of sensation in the distribution of the median nerve and thenar muscle atrophy may occur. This condition may be associated with repetitive occupational trauma, wrist injuries, amyloid neuropathies, rheumatoid arthritis.

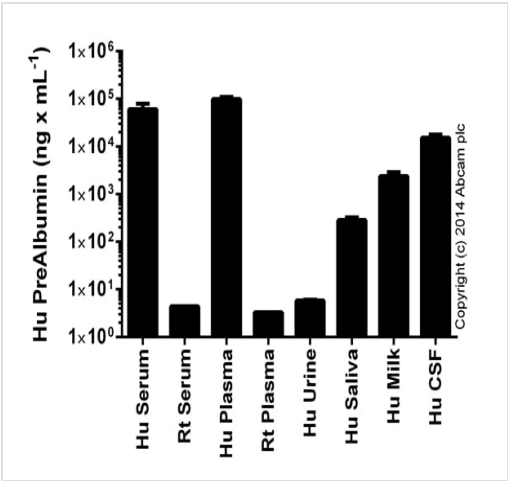
Sequence similarities	Belongs to the transthyretin family.
Domain	Each monomer has two 4-stranded beta sheets and the shape of a prolate ellipsoid. Antiparallel beta-sheet interactions link monomers into dimers. A short loop from each monomer forms the main dimer-dimer interaction. These two pairs of loops separate the opposed, convex beta-sheets of the dimers to form an internal channel.
Cellular localization	Secreted. Cytoplasm.

Images



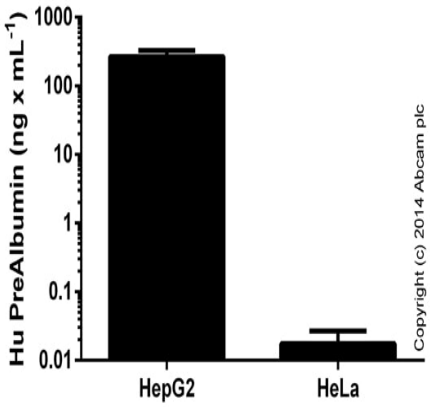
Typical Standard Curve

Human PreAlbumin standard curve.



Sandwich ELISA - PreAlbumin (Transthyretin) Human ELISA Kit (ab108895)

PreAlbumin measured in biological fluids, background signal subtracted (duplicates +/- SD).



Sandwich ELISA - PreAlbumin (Transthyretin) Human ELISA Kit (ab108895)

PreAlbumin detected in cell supernatants, results shown after background signal was subtracted (duplicates +/- SD).

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