



Recombinant Protein Technical Manual

Recombinant Human Transthyretin/TTR Protein (His Tag)(Active)

RPES3708

Product Data:

Product SKU: RPES3708

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_000362.1

Protein Information:

Molecular Mass: 15.2 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity: Measured by its binding ability in a functional ELISA. Immobilized recombinant human TTR-His at 10 µg/ml (100 µl/well) can bind recombinant Canine RBP4-Fc with a linear range of 0.30.0 µg/ml.

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: Transthyretin; ATTR; Prealbumin; TBPA; TTR; PALB;CTS;CTS1;HEL111

Immunogen Information:

Sequence: Met 1-Glu 147

Background:

Prealbumin/Transthyretin, also known as ATTR, Prealbumin, TTR and PALB, is a secreted and cytoplasm protein which belongs to the Prealbumin / Transthyretin family. Prealbumin / Transthyretin is detected in serum and cerebrospinal fluid (at protein level). It is highly expressed in choroid plexus epithelial cells. It is also detected in retina pigment epithelium and liver. Each monomer of Prealbumin / Transthyretin 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. Prealbumin/Transthyretin is a carrier protein. It transports thyroid hormones in the plasma and cerebrospinal fluid, and also transports retinol (vitamin A) in the plasma. Defects in Prealbumin / Transthyretin are the cause of amyloidosis type 1 (AMYL1) which is a hereditary generalized amyloidosis due to Prealbumin / Transthyretin amyloid deposition. Protein fibrils can form in different tissues leading to amyloid polyneuropathies, amyloidotic cardiomyopathy, carpal tunnel syndrome, systemic senile amyloidosis. The diseases caused by mutations include amyloidotic polyneuropathy, euthyroid hyperthyroxinaemia, amyloidotic vitreous opacities, cardiomyopathy, oculoleptomeningeal amyloidosis, meningocerebrovascular amyloidosis, carpal tunnel syndrome, etc.