

Transthyretin Active Protein | TTR active protein

Transthyretin Protein, Human, Recombinant (His Tag)

CATALOG #
AAA258005

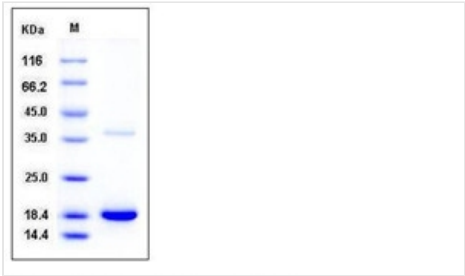
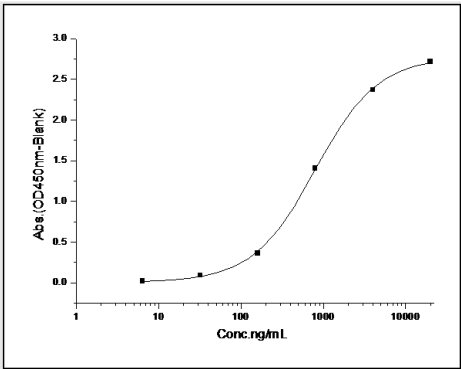
HOST
HEK293 Cells

PRODUCT SYNONYMS

Transthyretin; Transthyretin Protein; Human; Recombinant (His Tag); Human Prealbumin/Transthyretin/TTR/PALB Protein (His Tag); CTS Protein; CTS1 Protein; HEL111 Protein; HsT2651 Protein; PALB Protein; TBPA Protein; transthyretin; TTR active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>97% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Glu14 7
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Gly 21
Tag	C-His
Protein Construction	A DNA sequence encoding the human TTR (NP_000362.1)(Met 1-Glu 147) with a C-terminal polyhistidine tag was expressed.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized recombinant human TTR-His at 10ug/ml (100uL/well) can bind recombinant Canine RBP4-Fc with a linear range of 0.3-10.0ug/ml.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized recombinant human TTR-His can bind recombinant Canine RBP4-Fc with a linear range of 0.3-10.0 ug/ml.

ADDITIONAL INFORMATION

Related Product Information for TTR active protein	Background: Prealbumin/Transthyretin, also known as ATTR, Prealbumin, TTR and PALB, is a secreted and cytoplasm protein that 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.
References	Westermarck P, et al. (1990) Fibril in senile systemic amyloidosis is derived from normal transthyretin. Proc Natl Acad Sci U S A. 87(7): 2843-5.Colon W, et al. (1992) Partial denaturation of transthyretin is sufficient for amyloid fibril formation in vitro. Biochemistry. 31(36): 8654-60.Hammarstrm P, et al. (2003) Prevention of transthyretin amyloid disease by changing protein misfolding energetics. Science. 299(5607): 713-6.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507725
NCBI GeneID	7276
NCBI Accession #	NP_000362.1
NCBI GenBank Nucleotide #	NM_000371.3
UniProt Accession #	P02766; Q549C7; Q6IB96; Q9UBZ6; Q9UCM9
Molecular Weight	15,887 Da
NCBI Official Full Name	transthyretin
NCBI Official Synonym Full Names	transthyretin
NCBI Official Symbol	TTR
NCBI Official Synonym Symbols	CTS; CTS1; PALB; TBPA; HsT2651
NCBI Protein Information	transthyretin; ATTR; carpal tunnel syndrome 1; thyroxine-binding prealbumin; prealbumin, amyloidosis type I

UniProt Protein Name	Transthyretin
UniProt Gene Name	TTR
UniProt Synonym Gene Names	PALB
UniProt Entry Name	TTHY_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-ttr-active-protein/transthyretin/258005>