Recombinant Human Transthyretin/TTR Protein (His Tag)

Catalog Number: PKSH030907

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Species	Human
Source	HEK293 Cells-derived Human Transthyretin/TTR protein Met 1-Glu 147, with an C-terminal His
Calculated MW	15.2 kDa
Accession	NP_000362.1
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 0.3-10.0 μg/ml.

Properties

Purity	> 97% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, 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 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

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.

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