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Product datasheet

Recombinant Human Prealbumin protein ab152031

Description

Product name	Recombinant Human Prealbumin protein
Purity	> 95 % SDS-PAGE. ab152031 was determined to be >95% pure by SEC-HPLC and reducing SDS-PAGE.
Endotoxin level	< 0.100 Eu/µg
Expression system	HEK 293 cells
Accession	P02766
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	GPTGTGESKCPLMVKVLDAVRGSPAINVAVHVFRKAA DDTWEPFASGKTS ESGELHGLTTEEEFVEGIYKVEIDTKSYWKALGISPFHE HAEVVFTANDS GPRRYTIAALLSPYSYSTTAVVTNPKEVDHHHHHH
Predicted molecular weight	15 kDa including tags
Amino acids	21 to 147
Tags	His tag C-Terminus

Specifications

Our Abpromise guarantee covers the use of **ab152031** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE HPLC
Form	Lyophilised
Additional notes	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Please see notes section. pH: 8.00 Constituents: 0.32% Tris HCl, 0.88% Sodium chloride
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

General Info

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.

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