SANTA CRUZ BIOTECHNOLOGY, INC.

# Prealbumin (10E1): sc-69794

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

## BACKGROUND

Prealbumin, also designated transthyretin, is a major thyroid-hormone binding protein involved in transporting thyroxine from the bloodstream to the brain. Prealbumin is located in the cytoplasm and in the vesicles of developing rat brain cells, and is thought to be transported there from the cerebrospinal fluid via endocytosis. Sequence variants of this protein have been identified in amyloid fibrils from patients with familial amyloidotic polyneuropathy (FAP), the most common form of hereditary systemic amyloidosis. Although the biologically active form of Prealbumin is a tetramer, the amyloidogenic intermediate is thought to be a monomeric species. Prealbumin also binds to the retinol carrier protein RBP (retinol-binding protein). The gene encoding Prealbumin maps to human chromosome 18q12.1.

## REFERENCES


1. Sparkes, R.S., et al. 1987. Assignment of the Prealbumin (PALB) gene (familial amyloidotic polyneuropathy) to human chromosome region 18q11.2-q12.1. Hum. Genet. 75: 151-154.
2. Christmanson, L., et al. 1991. The transthyretin cDNA sequence is normal in transthyretin-derived senile systemic amyloidosis. FEBS Lett. 281: 177-180.
3. Almeida, M.R., et al. 1996. Thyroxine binding to transthyretin (TTR) variants—two variants (TTR Pro 55 and TTR Met 111) with a particularly low binding affinity. Eur. J. Endocrinol. 135: 226-230.
4. Malpeli, G., et al. 1996. Retinoid binding protein and the interference with the interaction with transthyretin. Biochem. Biophys. Acta 1294: 48-54.
5. Quintas, A., et al. 1997. The amyloidogenic potential if transthyretin variants correlates with their tendency to aggregate in solution. FEBS Lett. 418: 297-300.
6. Kuchler-Bopp, S., et al. 1998. The presence of transthyretin in rat ependymal cells due to endocytosis and not synthesis. Brain Res. 793: 219-230.
7. Nettleton, E.J., et al. 1998. Protein subunits interactions and structural integrity of amyloidogenic transthyretins: evidence from electrospray mass spectrometry. J. Mol. Biol. 281: 553-564.


## CHROMOSOMAL LOCATION

Genetic locus: TTR (human) mapping to 18q12.1; Ttr (mouse) mapping to 18 A2.

## SOURCE

Prealbumin (10E1) is a mouse monoclonal antibody raised against purified Prealbumin of human origin.

## PRODUCT

Each vial contains $IgG_{2a}$ in 100 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

Prealbumin (10E1) is recommended for detection of Prealbumin of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

Suitable for use as control antibody for Prealbumin siRNA (h): sc-39715, Prealbumin siRNA (m): sc-39716, Prealbumin shRNA Plasmid (h): sc-39715-SH, Prealbumin shRNA Plasmid (m): sc-39716-SH, Prealbumin shRNA (h) Lentiviral Particles: sc-39715-V and Prealbumin shRNA (m) Lentiviral Particles: sc-39716-V.

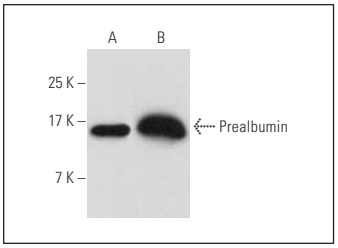
Molecular Weight of Prealbumin: 15 kDa.

Positive Controls: human plasma extract: sc-364374.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA




Prealbumin (10E1): sc-69794. Western blot analysis of Prealbumin purified from human plasma (**A**) and in human plasma (**B**).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.