

Prealbumin (C-20): sc-8104

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 transthyretin is a tetramer, the amyloidogenic intermediate is thought to be a monomeric species. Prealbumin also binds to retinol carrier protein, 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.

CHROMOSOMAL LOCATION

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

SOURCE

Prealbumin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Prealbumin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8104 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

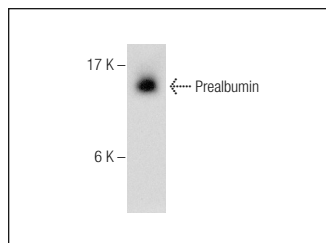
Prealbumin (C-20) is recommended for detection of precursor and mature Prealbumin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

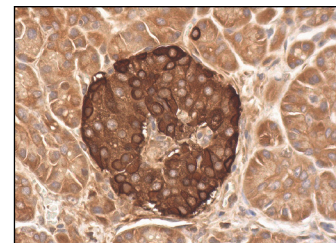
Molecular Weight of Prealbumin: 15 kDa.

Positive Controls: human plasma lysate: sc-364374, Hep G2 cell lysate: sc-2227 or H4 cell lysate: sc-2408.

DATA



Prealbumin (C-20): sc-8104. Western blot analysis of Prealbumin in human plasma.



Prealbumin (C-20): sc-8104. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

SELECT PRODUCT CITATIONS

1. Stein, T.D., et al. 2004. Neutralization of transthyretin reverses the neuro-protective effects of secreted amyloid precursor protein (APP) in APPSW mice resulting in tau phosphorylation and loss of hippocampal neurons: support for the amyloid hypothesis. *J. Neurosci.* 24: 7707-7717.
2. Watanabe, Y., et al. 2005. Conditioned medium of the primary culture of rat choroid plexus epithelial (modified ependymal) cells enhances neurite outgrowth and survival of hippocampal neurons. *Neurosci. Lett.* 379: 158-163.
3. Sousa, J.C., et al. 2006. Transthyretin and Alzheimer's disease: Where in the brain? *Neurobiol. Aging* 28: 713-718.

MONOS
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Try **Prealbumin (E-1): sc-377517** or **Prealbumin (E-4): sc-377178**, our highly recommended monoclonal alternatives to Prealbumin (C-20).