SANTA CRUZ BIOTECHNOLOGY, INC.

Prealbumin (FL-147): sc-13098

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 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.

CHROMOSOMAL LOCATION

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

SOURCE

Prealbumin (FL-147) is a rabbit polyclonal antibody raised against amino acids 1-147 representing full length 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.

APPLICATIONS

Prealbumin (FL-147) 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).

Prealbumin (FL-147) is also recommended for detection of precursor and mature Prealbumin in additional species, including equine, canine, bovine and porcine.

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: ARPE-19 whole cell lysate: sc-364357, H4 cell lysate: sc-2408 or mouse brain extract: sc-2253.

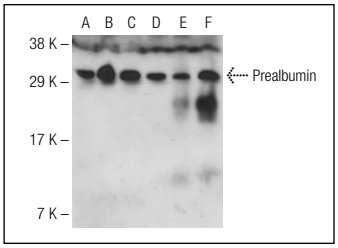
STORAGE

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

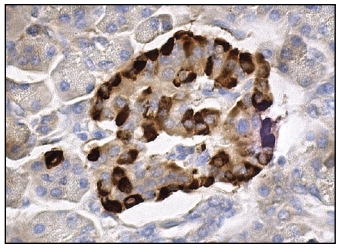
RESEARCH USE

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

DATA



Prealbumin (FL-147): sc-13098. Western blot analysis of Prealbumin expression in Hep G2 (**A**), ARPE-19 (**B**), H4 (**C**) and SK-N-MC (**D**) whole cell lysates and mouse liver (**E**) and mouse brain (**F**) tissue extracts.



Prealbumin (FL-147): sc-13098. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of Islets of Langerhans.

SELECT PRODUCT CITATIONS

1. Kurosawa, T., et al. 2005. Selective silencing of a mutant transthyretin allele by small interfering RNAs. Biochem. Biophys. Res. Commun. 337: 1012-1018.
2. Joo, Y., et al. 2009. Chronic immobilization stress induces anxiety- and depression-like behaviors and decreases transthyretin in the mouse cortex. Neurosci. Lett. 461: 121-125.
3. Miyata, M., et al. 2010. Role of the glutamic acid 54 residue in transthyretin stability and thyroxine binding. Biochemistry 49: 114-123.
4. Spuch, C. and Carro, E. 2011. The p75 neurotrophin receptor localization in blood-CSF barrier: expression in choroid plexus epithelium. BMC Neurosci. 12: 39.
5. Peigñan, L., et al. 2011. Combined use of anticancer drugs and an inhibitor of multiple drug resistance-associated protein-1 increases sensitivity and decreases survival of glioblastoma multiforme cells *in vitro*. Neurochem. Res. 36: 1397-1406.
6. Zhang, Y., et al. 2011. Proteomic and metabolomic profiling of a trait anxiety mouse model implicate affected pathways. Mol. Cell. Proteomics 10: M111.008110.
7. Kutasy, B., et al. 2012. Nitrofen interferes with trophoblastic expression of retinol-binding protein and transthyretin during lung morphogenesis in the nitrofen-induced congenital diaphragmatic hernia model. Pediatr. Surg. Int. 28: 143-148.
8. Dhaunchak, A.S., et al. 2012. Implication of perturbed axoglial apparatus in early pediatric multiple sclerosis. Ann. Neurol. 71: 601-613.