

# Prealbumin (E-1): sc-377517

## 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. Christmansson, L., et al. 1991. The transthyretin cDNA sequence is normal in transthyretin-derived senile systemic amyloidosis. *FEBS Lett.* 281: 177-180.
3. Malpeli, G., et al. 1996. Retinoid binding protein and the interference with the interaction with transthyretin. *Biochem. Biophys. Acta* 1294: 48-54.

## CHROMOSOMAL LOCATION

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

## SOURCE

Prealbumin (E-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 91-129 near the C-terminus of Prealbumin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Prealbumin (E-1) is available conjugated to agarose (sc-377517 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377517 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377517 PE), fluorescein (sc-377517 FITC), Alexa Fluor® 488 (sc-377517 AF488), Alexa Fluor® 546 (sc-377517 AF546), Alexa Fluor® 594 (sc-377517 AF594) or Alexa Fluor® 647 (sc-377517 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377517 AF680) or Alexa Fluor® 790 (sc-377517 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377517 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## RESEARCH USE

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

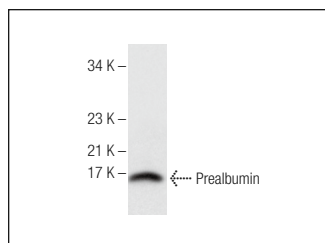
## APPLICATIONS

Prealbumin (E-1) is recommended for detection of precursor and mature Prealbumin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

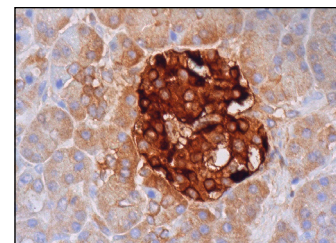
Suitable for use as control antibody for Prealbumin siRNA (h): sc-39715, Prealbumin siRNA (m): sc-39716, Prealbumin shRNA Plasmid (h): sc-39715-SH, Prealbumin shRNA Plasmid (m): sc-39716-SH, Prealbumin shRNA (h) Lentiviral Particles: sc-39715-V and Prealbumin shRNA (m) Lentiviral Particles: sc-39716-V.

Molecular Weight of Prealbumin: 15 kDa.

## DATA



Prealbumin (E-1): sc-377517. Western blot analysis of Prealbumin in human plasma.



Prealbumin (E-1): sc-377517. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and membrane staining of exocrine glandular cells and cytoplasmic staining of Islets of Langerhans.

## SELECT PRODUCT CITATIONS

1. Westermark, P., et al. 2014. Transthyretin-derived amyloidosis: probably a common cause of lumbar spinal stenosis. *Ups. J. Med. Sci.* 119: 223-228.
2. Zeng, Q., et al. 2021. Cofilin 2 acts as an inflammatory linker between chronic periodontitis and Alzheimer's disease in amyloid precursor protein/presenilin 1 mice. *Front. Mol. Neurosci.* 14: 728184.
3. Militello, R., et al. 2022. Modulation of plasma proteomic profile by regular training in male and female basketball players: a preliminary study. *Front. Physiol.* 13: 813447.
4. Qiu, Q., et al. 2024. Farnesylthiosalicylic acid through inhibition of Galectin-3 improves neuroinflammation in Alzheimer disease via multiple pathways. *CNS Neurosci. Ther.* 30: e70127.

## STORAGE

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