

NPT2b (P-14): sc-160605

BACKGROUND

Pulmonary surfactant is a lipid-rich molecule that is produced in alveoli of the lung in order to reduce surface tension and atelectasis. NPT2b sodium-dependent phosphate transport protein 2B), also known as NaPi3b and SLC34A2 (solute carrier family 34 member 2), is a 690 amino acid multi-pass membrane protein that is highly expressed in lung and may play a role in the synthesis of surfactant in type II pneumocytes. As a type 2 sodium-dependent phosphate transporter, it is likely that NPT2b functions in the uptake of liberated phosphate from the alveolar fluid for surfactant production. Defects in the gene encoding NPT2b are the cause of pulmonary alveolar microlithiasis, a rare disease characterized by the deposition of calcium phosphate microliths in the lung. Most patients are asymptomatic, although the disease follows a long-term progressive course that leads to a slow deterioration of lung function. There are two isoforms of NPT2b that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC34A2 (human) mapping to 4p15.2.

SOURCE

NPT2b (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of NPT2b 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-160605 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

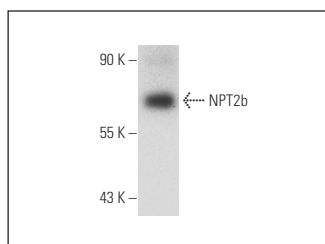
NPT2b (P-14) is recommended for detection of NPT2b of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with NPT2 or NPT2c.

Suitable for use as control antibody for NPT2b siRNA (h): sc-89266, NPT2b shRNA Plasmid (h): sc-89266-SH and NPT2b shRNA (h) Lentiviral Particles: sc-89266-V.

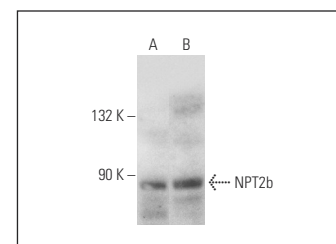
Molecular Weight of NPT2b: 76 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or WI-38 whole cell lysate: sc-364260.

DATA



NPT2b (P-14): sc-160605. Western blot analysis of NPT2b expression in KNRK whole cell lysate.



NPT2b (P-14): sc-160605. Western blot analysis of NPT2b expression in WI-38 (A) and HeLa (B) whole cell lysates.

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.