

# PiT1 (H-130): sc-98814

## BACKGROUND

The SLC20 family transport proteins were originally identified as retroviral receptors Glvr-1 and Ram-1, but are now designated sodium-dependent phosphate transporters 1 and 2 (PiT1 and PiT2). The PiT proteins function as sodium-phosphate cotransporters and are widely expressed, with high expression in bone, kidney and intestine. Both PiT1 and PiT2 are expressed on polarized epithelial cell membranes where they play a role in cellular phosphate homeostasis. PiT2 is a human receptor for amphotropic murine leukemia virus (A-MuLV). A-MuLV infects a variety of mammalian cell lines, including humans, making it a useful tool in gene transfer technology and as a vector for gene therapy. Retroviral vector systems are used in gene therapy that are designed to infect cells expressing PiT1 or PiT2.

## REFERENCES

1. Sugai, J., et al. 2001. Identification of envelope determinants of feline leukemia virus subgroup B that permit infection and gene transfer to cells expressing human PiT1 or PiT2. *J. Virol.* 75: 6841-6849.
2. Salaün, C., et al. 2002. PiT2 assemblies at the cell surface are modulated by extracellular inorganic phosphate concentration. *J. Virol.* 76: 4304-43011.

## CHROMOSOMAL LOCATION

Genetic locus: SLC20A1 (human) mapping to 2q13; Slc20a1 (mouse) mapping to 2 F1.

## SOURCE

PiT1 (H-130) is a rabbit polyclonal antibody raised against amino acids 251-380 mapping within an internal region of PiT1 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

PiT1 (H-130) is recommended for detection of PiT1 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).

PiT1 (H-130) is also recommended for detection of PiT1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for PiT1 siRNA (h): sc-106414, PiT1 siRNA (m): sc-106415, PiT1 shRNA Plasmid (h): sc-106414-SH, PiT1 shRNA Plasmid (m): sc-106415-SH, PiT1 shRNA (h) Lentiviral Particles: sc-106414-V and PiT1 shRNA (m) Lentiviral Particles: sc-106415-V.

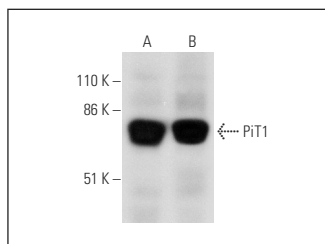
Molecular Weight of PiT1: 74 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SK-MEL-24 whole cell lysate: sc-364259.

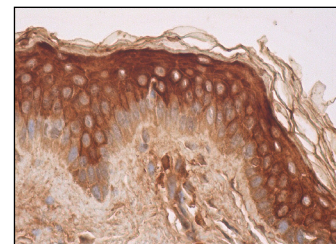
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



PiT1 (H-130): sc-98814. Western blot analysis of PiT1 expression in HeLa (A) and SK-MEL-28 (B) whole cell lysates.



PiT1 (H-130): sc-98814. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of fibroblasts, keratinocytes, melanocytes and Langerhans cells.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **PiT1/2 (SY-12): sc-101298**, our highly recommended monoclonal alternative to PiT1 (H-130).