#12765 Store at -20°C

PiT1/SLC20A1 (D1Z4X) Rabbit mAb

☑100 µl
(10 western blots)

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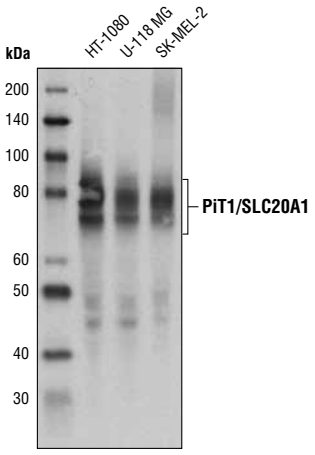
Entrez Gene ID #6574
UniProt ID #Q8WUM9

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H	75-95 kDa	Rabbit IgG**

Background: Phosphate transporter 1 (PiT1/SLC20A1) is a sodium dependent phosphate (Pi) transporter that imports Pi into cells. PiT1 was initially identified as a receptor for retroviruses (1,2). It is widely expressed in various tissues where it plays a critical role in maintaining cellular Pi homeostasis (3,4). Phosphate transporter 1 is important in cell proliferation and tumor cell growth independent of PiT1 phosphate transport function (5). Researchers have found that PiT1 is involved in TNF-α induced apoptosis (6). Moreover, phosphate uptake via PiT1 is crucial for vascular calcification (7) and overexpression of PiT1 leads to soft tissue calcification in Werner syndrome patients (8). Additional research indicates that increased PiT1 expression is seen in calcific aortic valve disease (CAVD) tissues, and that PiT1 enhances apoptosis and mineralization by modifying Akt1 levels (9).

Specificity/Sensitivity: PiT1/SLC20A1(D1Z4X) Rabbit mAb recognizes endogenous levels of total PiT1 protein.

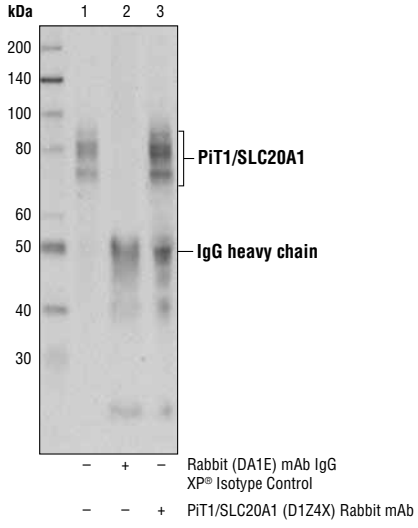
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly290 of human PiT1 protein.



Western blot analysis of extracts from various cell lines using PiT1/SLC20A1 (D1Z4X) Rabbit mAb.

Background References:

(1) O'Hara, B. et al. (1990) *Cell Growth Differ* 1, 119-27.
(2) Miller, D.G. et al. (1994) *Proc Natl Acad Sci USA* 91, 78-82.
(3) Kavanaugh, M.P. et al. (1994) *Proc Natl Acad Sci USA* 91, 7071-5.
(4) Uckert, W. et al. (1998) *Hum Gene Ther* 9, 2619-27.
(5) Beck, L. et al. (2009) *J Biol Chem* 284, 31363-74.
(6) Salaün, C. et al. (2010) *J Biol Chem* 285, 34408-18.
(7) Li, X. et al. (2006) *Circ Res* 98, 905-12.
(8) Honjo, S. et al. (2008) *Rejuvenation Res* 11, 809-19.
(9) El Husseini, D. et al. (2013) *PLoS One* 8, e53393.



Immunoprecipitation of PiT1 from HT-1080 cell extracts using ▶ Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or PiT1/SLC20A1 (D1Z4X) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using PiT1/SLC20A1 (D1Z4X) Rabbit mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.