

PANK4 (D8N2C) Rabbit mAb

✓ 100 µl
(10 western blots)



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Applications W, IP Endogenous	Species Cross-Reactivity* H, M, R, Hm, Mk	Molecular Wt. 82 kDa	Isotype Rabbit IgG**
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Background: Panthothenate kinase (PANK) is an enzyme that is responsible for catalyzing the first step in coenzyme A (CoA) synthesis (1-4). There are four human PANK genes (PANK1-4) (1-4). PANK4 is ubiquitously expressed with higher expression levels seen in muscle (1,2). PANK4 expression is elevated in rat skeletal muscle upon glucose challenge (2). There is evidence that rat PANK4 colocalizes with pyruvate kinase M2 (PKM2) *in vitro* (2). PANK4 may also play a protective role in beta-cell apoptosis by lowering the levels of pro-caspase-9 (3). Research studies have shown that mutations in the PANK2 gene are associated with Neurodegeneration with Brain Iron Accumulation (NBIA), formerly known as Hallervorden-Spatz syndrome (1,4). Expression of hPANK4 in a Drosophila model of NBIA rescues the phenotype with the exception of infertility (4).

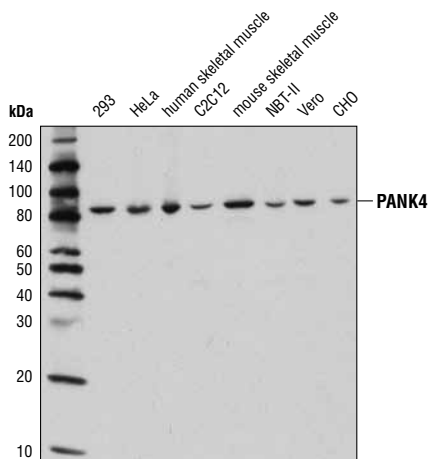
Specificity/Sensitivity: PANK4 (D8N2C) Rabbit mAb recognizes endogenous levels of total PANK4 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn373 of human PANK4 protein.

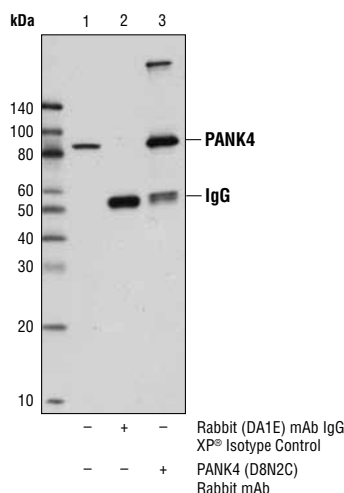
Background References:

- (1) Zhou, B. et al. (2001) *Nat Genet* 28, 345-9.
- (2) Li, Y. et al. (2005) *Mol Cell Biochem* 277, 117-25.
- (3) Xiang, R.L. et al. (2007) *Cell Res* 17, 966-8.
- (4) Wu, Z. et al. (2009) *Hum Mol Genet* 18, 3659-72.

Immunoprecipitation of PANK4 from HeLa cell extracts using Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or PANK4 (D8N2C) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using PANK4 (D8N2C) Rabbit mAb.



Western blot analysis of extracts from various cell lines and tissues using PANK4 (D8N2C) Rabbit mAb.



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.

Entrez-Gene ID #55229
Swiss-Prot Acc. #Q9NVE7

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.cellsignaling.com.

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

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.