

PANK4 (D6J4R) Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Hm Mk	Endogenous	82	Rabbit IgG	#Q9NVE7	55229

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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.

Specificity/Sensitivity

PANK4 (D6J4R) 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 Pro522 of human PANK4 protein.

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, but higher expression levels are observed in muscle (1,2). PANK4 expression is elevated in rat skeletal muscle under high glucose conditions (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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not

sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.