

#2061 Store at -20C

ENPP1 (L520) Antibody



Cell Signaling
TECHNOLOGY®

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:	UniProt ID:	Entrez-Gene Id:
WB, IP	H R	Endogenous	140 (Human), 110 (Rodent)	Rabbit	#P22413	5167

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

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

Specificity / Sensitivity

ENPP1 (L520) Antibody detects endogenous levels of total ENPP1 protein.

Species predicted to react based on 100% sequence homology:

Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu520 of human ENPP1. Antibodies were purified by protein A and peptide affinity chromatography.

Background

Ectonucleotide pyrophosphatase-phosphodiesterase 1 (ENPP1) is a single-pass, type II transmembrane protein primarily involved in ATP hydrolysis at the plasma membrane. Targeting of ENPP1 to the basolateral cell surface relies on the presence of a carboxy-terminal di-leucine-based signal (1). ENPP1 plays important roles in bone mineralization and soft tissue calcification (2-5). Mutations in the corresponding *ENPP1* gene cause generalized arterial calcification in infancy (GACI) and idiopathic infantile arterial calcification (IIAC) (6,7). ENPP1 inhibits insulin receptor function and overexpression of this enzyme causes insulin resistance and glucose intolerance in mice (8,9). Genetic variants of ENPP1 have been associated with obesity and type 2 diabetes (10-12).

Background References

1. Bello, V. et al. (2001) *Mol Biol Cell* 12, 3004-15.
2. Okawa, A. et al. (1998) *Nat Genet* 19, 271-3.
3. Nakamura, I. et al. (1999) *Hum Genet* 104, 492-7.
4. Harmey, D. et al. (2004) *Am J Pathol* 164, 1199-209.
5. Hessle, L. et al. (2002) *Proc Natl Acad Sci USA* 99, 9445-9.
6. Rutsch, F. et al. (2003) *Nat Genet* 34, 379-81.
7. Ruf, N. et al. (2005) *Hum Mutat* 25, 98.
8. Dong, H. et al. (2005) *Diabetes* 54, 367-72.
9. Maddux, B.A. et al. (2006) *Am J Physiol Endocrinol Metab* 290, E746-9.
10. Meyre, D. et al. (2005) *Nat Genet* 37, 863-7.
11. Keene, K.L. et al. (2008) *Diabetes* 57, 1057-62.
12. Bacci, S. et al. (2007) *Curr Opin Clin Nutr Metab Care* 10, 403-9.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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.