

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IF-IC Endogenous	H, M, (R)	165 kDa	Rabbit**

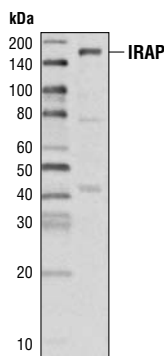
**Background:** IRAP (also known as LNPEP) was originally described as an insulin-responsive aminopeptidase found in GLUT4-containing vesicles (1), but later found to be a critical enzyme that regulates the expression and activity of several essential hormones and regulatory proteins, including the GLUT4 transporter (2,3). This membrane associated, zinc-dependent cystinyl aminopeptidase acts as both a receptor for angiotensin IV as well as the enzyme that catalyzes the synthesis of this essential hormone from its angiotensinogen precursor (4). IRAP catalyzes the hydrolysis of several peptide hormones, including oxytocin and vasopressin (3). Abnormal IRAP expression or activity is associated with several forms of cancer in humans, including renal and endometrial cancer (5,6).

**Specificity/Sensitivity:** IRAP Antibody detects endogenous levels of total IRAP protein.

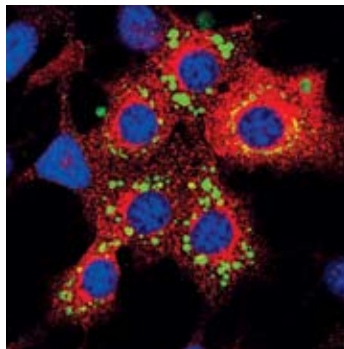
**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human IRAP protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

- (1) Garza, L.A. and Birnbaum, M.J. (2000) *J Biol Chem* 275, 2560-7.
- (2) Albiston, A.L. et al. (2001) *J Biol Chem* 276, 48623-6.
- (3) Keller, S.R. (2003) *Front Biosci* 8, s410-20.
- (4) Vanderheyden, P.M. (2009) *Mol Cell Endocrinol* 302, 159-66.
- (5) Larrinaga, G. et al. (2007) *Regul Pept* 144, 56-61.
- (6) Suzuki, Y. et al. (2003) *Clin Cancer Res* 9, 1528-34.



Western blot analysis of extracts from C2C12 cells using IRAP Antibody.



Confocal immunofluorescent analysis of differentiated 3T3-L1 cells using IRAP Antibody (red). Lipid droplets have been labeled with BODIPY 493/503 (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Entrez-Gene ID #4012  
Swiss-Prot Acc. #Q9UIQ6

**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.

\*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
Immunofluorescence (IF-IC)	1:50

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion 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.**

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