



**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

Store at -20C  
#3930

## Rab3A Antibody

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

<b>Applications:</b> W	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 25	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P20336	<b>Entrez-Gene Id:</b> 5864
---------------------------	-----------------------------	-----------------------------------	------------------------	----------------------------------	-------------------------------	--------------------------------

### 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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

Rab3A Antibody detects endogenous levels of total Rab3A protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu148 of human Rab3A. Antibodies are purified by peptide affinity chromatography.

### Background

The Rab family of proteins includes small, monomeric GTPases essential for regulating intracellular vesicle trafficking. Members of the Rab3 subfamily, including Rab3A-3D, are involved in the exocytosis of neurotransmitters and hormones (1). Rab3A is primarily expressed in neurons (2), neuroendocrine cells (such as rat PC-12 cells), and in human pancreatic β cells (3,4). By acting as a molecular switch between active GTP-bound Rab3A and the inactive GDP-bound form, Rab3A inhibits synaptic vesicle and chromaffin granule secretion during late membrane release (5,6). Loss-of-function studies suggest Rab3A is involved in controlling synaptic vesicle targeting and docking at the active zone (7). Through binding to its direct effector Rabphilin, Rab3A also orchestrates the coupling between synaptic vesicle exocytosis and endocytosis (8).

### Background References

1. Zerial, M. and McBride, H. (2001) *Nat Rev Mol Cell Biol* 2, 107-17.
2. Geppert, M. et al. (1994) *Nature* 369, 493-7.
3. Weber, E. et al. (1996) *J Biol Chem* 271, 6963-71.
4. Yaekura, K. et al. (2003) *J Biol Chem* 278, 9715-21.
5. Johannes, L. et al. (1994) *EMBO J* 13, 2029-37.
6. Geppert, M. et al. (1997) *Nature* 387, 810-4.
7. Leenders, A.G. et al. (2001) *Mol Biol Cell* 12, 3095-102.
8. Coppola, T. et al. (2001) *J Cell Sci* 114, 1757-64.

### 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

### 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](http://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.