



**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

#3334 Store at -20C

## RasGRP3 (C33A3) Rabbit mAb

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

<b>Applications:</b> W	<b>Reactivity:</b> H M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 78	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q8IV61	<b>Entrez-Gene Id:</b> 25780
---------------------------	---------------------------	-----------------------------------	------------------------	--------------------------------------	-------------------------------	---------------------------------

### 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

RasGRP3 (C33A3) Rabbit mAb detects endogenous levels of total RasGRP3 protein.

### Species predicted to react based on 100% sequence homology

Monkey

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human RasGRP3.

### Background

Lymphocyte activation occurs in part through activation of the Ras signaling pathway following lymphocyte receptor stimulation. The RasGRP family of guanine nucleotide exchange factors (GEFs) catalyzes the exchange of GDP for GTP on Ras family small GTPases, promoting their active GTP-bound form. Diacylglycerol (DAG) or phorbol ester binding to RasGRP family members causes their translocation to the cell membrane and stimulates their activity (1,2). While T-Cells express RasGRP1, B-cells express both RasGRP1 and RasGRP3. RasGRP3 is important in linking B-cell receptor (BCR) activation to Ras signaling (3). In response to BCR stimulation, RasGRP3 is phosphorylated at Thr133 by PKC. This phosphorylation event further activates RasGRP3 in response to DAG, which stimulates PKC activity (4,5).

### Background References

1. Braun, D.C. et al. (2005) *Mol Cancer Ther* 4, 141-50.
2. Lorenzo, P.S. et al. (2001) *Cancer Res* 61, 943-9.
3. Oh-hora, M. et al. (2003) *J Exp Med* 198, 1841-51.
4. Aiba, Y. et al. (2004) *Proc Natl Acad Sci USA* 101, 16612-7.
5. Zheng, Y. et al. (2005) *Blood* 105, 3648-54.

### 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

**W:** Western Blotting

### Cross-Reactivity Key

**H:** Human **M:** Mouse

### Trademarks and Patents

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

U.S. Patent No. 7,429,487, foreign equivalents, and child patents deriving therefrom.

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.