Revision 1

# Phospho-Gab2 (Ser159) Antibody

#3884 Store at -20C

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/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| W | H M R | Endogenous | 98 | Rabbit | #Q9UQC2 | 9846 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 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

Phospho-Gab2 (Ser159) Antibody detects endogenous levels of Gab2 only when phosphorylated at serine 159. This antibody does not cross-react with Gab1 or Gab3.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser159 of human Gab2. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

The Grb-associated binder (Gab) family is a family of adaptor proteins recruited by a wide variety of receptor tyrosine kinases (RTKs) such as EGFR, HGFR, insulin receptor, cytokine receptor and B cell antigen receptors. Upon stimulation of RTKs by their cognate ligand, Gab is recruited to the plasma membrane where it is phosphorylated and functions as a scaffold (1-4). Multiple tyrosine phosphorylation sites of Gab1 protein have been identified (5). Phosphorylation of Tyr472 regulates its binding to p85 PI3 kinase (6,7). Phosphorylation of Gab1 at Tyr307, Tyr373 and Tyr407 modulates its association to PLCγ (8). Phosphorylation of Tyr627 and Tyr659 is required for Gab1 binding to and activation of the protein tyrosine phosphatase SHP2 (6,9).
Akt phosphorylates Gab2 at Ser159. This phosphorylation inhibits Gab2 tyrosine phosphorylation and downstream signal amplification (10).

## Background References

1. Holgado-Madruga, M. et al. (1996) *Nature* 379, 560-564.
2. Weidner, K.M. et al. (1996) *Nature* 384, 173-176.
3. Takahashi-Tezuka, M. et al. (1998) *Mol. Cell. Biol.* 18, 4109-4117.
4. Ingham, R.J. et al. (2001) *J Biol Chem* 276, 12257-65.
5. Lehr, S. et al. (1999) *Biochemistry* 38, 151-159.
6. Rocchi, S. et al. (1998) *Mol. Endocrinol.* 12, 914-923.
7. Yu, C.F. et al. (2001) *J Biol Chem* 276, 32552-8.
8. Gual, P. et al. (2000) *Oncogene* 19, 1509-18.
9. Cunnick, J.M. et al. (2001) *J Biol Chem* 276, 24380-7.
10. Lynch, D.K. and Daly, R.J. (2002) *EMBO J* 21, 72-82.

## 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



## Limited Uses

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.