

**PhosphoPlus®  $\beta$ -Catenin (Ser675)  
Antibody Duet****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.****UniProt ID:**  
#P35222**Entrez-Gene Id:**  
1499

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho- $\beta$ -Catenin (Ser675) (D2F1) XP® Rabbit mAb	4176	100 $\mu$ l	92 kDa	Rabbit IgG
$\beta$ -Catenin (D10A8) XP® Rabbit mAb	8480	100 $\mu$ l	92 kDa	Rabbit IgG

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.**Description**

PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Background**

$\beta$ -catenin is a key downstream effector in the Wnt signaling pathway (1). It is implicated in two major biological processes in vertebrates: early embryonic development (2) and tumorigenesis (3). CK1 phosphorylates  $\beta$ -catenin at Ser45. This phosphorylation event primes  $\beta$ -catenin for subsequent phosphorylation by GSK-3 $\beta$  (4-6). GSK-3 $\beta$  destabilizes  $\beta$ -catenin by phosphorylating it at Ser33, Ser37, and Thr41 (7). Mutations at these sites result in the stabilization of  $\beta$ -catenin protein levels and have been found in many tumor cell lines (8).

**Background References**

1. Cadigan, K.M. and Nusse, R. (1997) *Genes Dev* 11, 3286-3305.
2. Wodarz, A. and Nusse, R. (1998) *Annu Rev Cell Dev Biol* 14, 59-88.
3. Polakis, P. (1999) *Curr Opin Genet Dev* 9, 15-21.
4. Amit, S. et al. (2002) *Genes Dev* 16, 1066-76.
5. Liu, C. et al. (2002) *Cell* 108, 837-47.
6. Yanagawa, S. et al. (2002) *EMBO J* 21, 1733-42.
7. Yost, C. et al. (1996) *Genes Dev* 10, 1443-54.
8. Morin, P.J. et al. (1997) *Science* 275, 1787-90.

**Trademarks and Patents**

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

PhosphoPlus is a registered 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.