



**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  
#3585

## PDE5 (P434) Antibody

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

<b>Applications:</b> W, IP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 100	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #O76074	<b>Entrez-Gene Id:</b> 8654
-------------------------------	-------------------------	-----------------------------------	-------------------------	----------------------------------	-------------------------------	--------------------------------

### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation

#### Dilution

1:1000  
1:100

### 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

PDE5 (P434) Antibody detects endogenous levels of total PDE5 protein. The antibody cross-reacts with a 35-40 kDa protein of unknown origin.

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

Monkey

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to central residues of human PDE5.

### Background

The superfamily of phosphodiesterases (PDEs) catalyses the hydrolysis of 3',5'-cyclic nucleotides into the corresponding nucleotide 5'-monophosphates. PDE5 is a cGMP-specific enzyme that contains two cGMP binding sites in its amino-terminal regulatory domain (1). Elevation of cGMP levels causes activation of PKG, which phosphorylates PDE5 at Ser102 (2). Phosphorylation of PDE5 stimulates its enzymatic activity and enhances cGMP binding affinity in the regulatory domain, leading to a decrease in intracellular cGMP levels (3,4).

### Background References

1. Corbin, J.D. and Francis, S.H. (1999) *J. Biol. Chem.* 274, 13729-13732.
2. Thomas, L.K. et al. (1990) *J. Biol. Chem.* 265, 14971-14978.
3. Rybalkin, S.D. et al. (2002) *J. Biol. Chem.* 277, 3310-3317.
4. Francis, S.H. et al. (2002) *J. Biol. Chem.* 277, 47581-47587.

### 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 **IP:** Immunoprecipitation

### Cross-Reactivity Key

**H:** Human

### 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.