

Store at
-20C
#55041**Phospho-SMAD2 (Ser465/Ser467) (E8F3R)
Rabbit mAb (Biotinylated)****Orders:** 877-616-CELL (2355)
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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	60	Rabbit IgG	#Q15796	4087

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

StorageSupplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.***Specificity/Sensitivity**

Phospho-SMAD2 (Ser465/Ser467) (E8F3R) Rabbit mAb (Biotinylated) recognizes endogenous levels of Smad2 protein when phosphorylated at Ser465 and Ser467.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser465/Ser467 of human Smad2 protein.

Description

This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-SMAD2 (Ser465/Ser467) (E8F3R) Rabbit mAb #18338.

Background

Members of the SMAD family of signal transduction molecules are components of a critical intracellular pathway that transmit TGF- β signals from the cell surface into the nucleus. Three distinct classes of SMADs have been defined: the receptor-regulated SMADs (R-SMADs), which include SMAD1, 2, 3, 5, and 9; the common-mediator SMAD (co-SMAD), SMAD4; and the antagonistic or inhibitory SMADs (I-SMADs), SMAD6 and 7 (1-5). Activated type I receptors associate with specific R-SMADs and phosphorylate them on a conserved carboxy-terminal SSXS motif. The phosphorylated R-SMADs dissociate from the receptor and form a heteromeric complex with SMAD4, initiating translocation of the heteromeric SMAD complex to the nucleus. Once in the nucleus, SMADs recruit a variety of DNA binding proteins that function to regulate transcriptional activity (6-8).

Background References

- Heldin, C.H. et al. (1997) *Nature* 390, 465-71.
- Attisano, L. and Wrana, J.L. (1998) *Curr Opin Cell Biol* 10, 188-94.
- Derynck, R. et al. (1998) *Cell* 95, 737-40.
- Massagué, J. (1998) *Annu Rev Biochem* 67, 753-91.
- Whitman, M. (1998) *Genes Dev* 12, 2445-62.
- Wrana, J.L. (2000) *Sci STKE* 2000, re1.
- Attisano, L. and Wrana, J.L. (2002) *Science* 296, 1646-7.
- Moustakas, A. et al. (2001) *J Cell Sci* 114, 4359-69.

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 **R:** Rat**Trademarks and Patents**

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