Revision 3

#12747 Store at -20°C

SMAD2/3 Antibody Sampler Kit

1 Kit (6 x 20 microliters)

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

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-SMAD2 (Ser465/467) (138D4) Rabbit mAb	3108	20 µl	60 kDa	Rabbit IgG
Smad2 (D43B4) XP® Rabbit mAb	5339	20 µl	60 kDa	Rabbit IgG
SMAD2/3 (D7G7) XP® Rabbit mAb	8685	20 µl	52, 60 kDa	Rabbit IgG
Phospho-SMAD3 (Ser423/425) (C25A9) Rabbit mAb	9520	20 µl	52 kDa	Rabbit IgG
SMAD3 (C67H9) Rabbit mAb	9523	20 µl	52 kDa	Rabbit IgG
SMAD4 (D3M6U) Rabbit mAb	38454	20 µl	70 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The SMAD2/3 Antibody Sampler Kit provides an economical means of detecting target proteins of the TGF-β signaling pathway. The kit includes enough antibody to perform two western blots with each primary antibody.

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.

Background

Transforming growth factor-β (TGF-β) superfamily signaling plays a critical role in the regulation of cell growth, differentiation, and development in a wide range of biological systems. In general, signaling is initiated with ligand-induced oligomerization of serine/ threonine receptor kinases and phosphorylation of the cytoplasmic signaling molecules Smad2 and Smad3 for the TGF-β/activin pathway, or Smad1/5/8 for the bone morphogenetic protein (BMP) pathway. Carboxy-terminal phosphorylation of Smad proteins by activated receptors results in their partnering with the common signaling transducer Smad4, and translocation to the nucleus. Activated Smad proteins regulate diverse biological effects by partnering with transcription factors resulting in cell-state specific modulation of transcription (1-4).

Background References

1. Horbelt, D. et al. (2012) *Int J Biochem Cell Biol* 44, 469-74.
2. Ikushima, H. and Miyazono, K. (2010) *Nat Rev Cancer* 10, 415-24.
3. Kitisin, K. et al. (2007) *Sci STKE* 2007, cm1.
4. Schmierer, B. and Hill, C.S. (2007) *Nat Rev Mol Cell Biol* 8, 970-82.

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