# abcam

## Product datasheet

## Human Smad2 (phospho S465 + S467) peptide ab17672

#### 1 References 1 图像

描述

纯**度** > 90 % HPLC.

无动物成分 No

**性**质 Synthetic

种属 Human

#### 技术指标

Our Abpromise guarantee covers the use of ab17672 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

#### 形式

Lyophilized

补充说明

- First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions.
- If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer.
- Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent.
- Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised.
- Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.

#### 制备和贮存

稳定性和存储

Shipped at 4°C. Store at -20°C.

Information available upon request.

### 常规信息

功能

Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional

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modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. Binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD2/SMAD4 complex, activates transcription. May act as a tumor suppressor in colorectal carcinoma.

组织特异性 Expressed at high levels in skeletal muscle, heart and placenta.

**序列相似性** Belongs to the dwarfin/SMAD family.

Contains 1 MH1 (MAD homology 1) domain. Contains 1 MH2 (MAD homology 2) domain.

翻译后修饰 Phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to

TGF-beta, phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases. Able to interact with SMURF2 when phosphorylated on Ser-465/467, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, phosphorylated on Ser-240 by CaMK2. Phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin. In response to TGF-beta, ubiquitinated by NEDD4L; which promotes its degradation. Acetylated on Lys-19 by coactivators in response to TGF-beta signaling, which increases transcriptional activity. Isoform short: Acetylation increases DNA binding activity in vitro and enhances its association with target promoters in vivo. Acetylation in the nucleus by EP300 is

enhanced by TGF-beta.

细胞定位 Cytoplasm. Nucleus. Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta

stimulation, migrates to the nucleus when complexed with SMAD4. On dephosphorylation by phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the

nucleus by interaction with RANBP1.

#### 图片

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Human Smad2 (phospho S465 + S467) peptide (ab17672)

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