



#### **SMAD6 Blocking Peptide (C-term)**

Synthetic peptide Catalog # BP20196b

#### **Specification**

SMAD6 Blocking Peptide (C-term) - Product Information

Primary Accession O43541
Other Accession O35182,
NP 005576.3

SMAD6 Blocking Peptide (C-term) - Additional Information

**Gene ID** 4091

#### **Other Names**

Mothers against decapentaplegic homolog 6, MAD homolog 6, Mothers against DPP homolog 6, SMAD family member 6, SMAD 6, Smad6, hSMAD6, SMAD6, MADH6

#### Target/Specificity

The synthetic peptide sequence is selected from aa 372-386 of HUMAN SMAD6

#### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SMAD6 Blocking Peptide (C-term) - Protein Information

Name SMAD6

Synonyms MADH6

**Function** 

# SMAD6 Blocking Peptide (C-term) - Background

The protein encoded by this gene belongs to the SMAD family of proteins, which are related to Drosophila 'mothers against decapentaplegic' (Mad) and C. elegans Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions in the negative regulation of BMP and TGF-beta/activin-signalling. Multiple transcript variants encoding different isoforms have been found for this gene.

# SMAD6 Blocking Peptide (C-term) - References

Tseng, Z.H., et al. Heart Rhythm

Ryan, J.D., et al. Hepatology 52(4):1266-1273(2010) Mangone, F.R., et al. Mol. Cancer 9, 106 (2010) .

6(12):1745-1750(2009) Yu, H., et al. Acta Derm. Venereol. 89(4):351-356(2009) Verschueren, K., et al. Cytokine Growth Factor Rev. 10 (3-4), 187-199 (1999) :



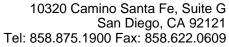
Transforming growth factor-beta superfamily receptors signaling occurs through the Smad family of intracellular mediators. SMAD6 is an inhibitory Smad (i-Smad) that negatively regulates signaling downstream of type I transforming growth factor-beta (PubMed: <a href="http://www.u niprot.org/citations/9436979" target=" blank">9436979</a>, PubMed:<a href="http://www.uniprot.org/ci tations/16951688" target=" blank">16951688</a>, PubMed:<a href="http://www.uniprot.org/ci tations/22275001" target=" blank">22275001</a>, PubMed: <a href="http://www.uniprot.org/ci tations/9759503" target="\_blank">9759503</a>, PubMed:<a href="http://www.uniprot.org/ci tations/10647776" target=" blank">10647776</a>, PubMed:<a href="http://www.uniprot.org/ci tations/10708948" target=" blank">10708948</a>, PubMed:<a href="http://www.uniprot.org/ci tations/10708949" target=" blank">10708949</a>, PubMed:<a href="http://www.uniprot.org/ci tations/30848080" target=" blank">30848080</a>). Acts as a mediator of TGF-beta and BMP anti-inflammatory activities. Suppresses IL1R-TLR signaling through its direct interaction with PEL1, preventing NF-kappa-B activation, nuclear transport and NF-kappa-B- mediated expression of proinflammatory genes (PubMed:<a href=" http://www.uniprot.org/citations/16951688" target=" blank">16951688</a>). Blocks the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptoractivated SMAD1-binding (PubMed:<a href ="http://www.uniprot.org/citations/9436979 "target=" blank">9436979</a>, PubMed:<a href="http://www.uniprot.org/ci tations/30848080" target=" blank">30848080</a>). Binds to regulatory elements in target promoter regions (PubMed:<a href="http://www.unipr ot.org/citations/16491121"

#### Cellular Location Nucleus.

### **Tissue Location**

Ubiquitous in various organs, with higher

target=" blank">16491121</a>).





levels in lung. Isoform B is up-regulated in diseased heart tissue

## SMAD6 Blocking Peptide (C-term) -**Protocols**

Provided below are standard protocols that you may find useful for product applications.

• Blocking Peptides