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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

Ryan, J.D., et al. Hepatology 52(4):1266-1273(2010)
Mangone, F.R., et al. Mol. Cancer 9, 106 (2010) :
Tseng, Z.H., et al. Heart Rhythm 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:9436979, PubMed:16951688, PubMed:22275001, PubMed:9759503, PubMed:10647776, PubMed:10708948, PubMed:10708949, PubMed:30848080). 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:16951688). Blocks the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptor-activated SMAD1-binding (PubMed:9436979, PubMed:30848080). Binds to regulatory elements in target promoter regions (PubMed:16491121).

Cellular Location
Nucleus.

Tissue Location
Ubiquitous in various organs, with higher

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