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SMAD3-S213 Non-phospho Control Peptide

Synthetic Peptide
Catalog # SP2003c

Specification

SMAD3-S213 Non-phospho Control Peptide - Product Information

Primary Accession	P84024
Other Accession	P84022, Q8BUN5, P84025, P84023
Sequence	**CNLSPNPMSPAHNNLD**

SMAD3-S213 Non-phospho Control Peptide - Additional Information

Gene ID 397260

Other Names
Mothers against decapentaplegic homolog 3, MAD homolog 3, Mad3, Mothers against DPP homolog 3, SMAD family member 3, SMAD 3, Smad3, SMAD3, MADH3

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.

SMAD3-S213 Non-phospho Control Peptide - Protein Information

Name SMAD3

Synonyms MADH3

Function
Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional 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 SMAD3/SMAD4 complex, activates transcription. Also can form a SMAD3/SMAD4/JUN/FOS complex at the AP- 1/SMAD site to regulate TGF-beta-mediated transcription. Has an inhibitory effect on wound healing probably by modulating both growth and migration of primary keratinocytes and by altering the TGF-mediated chemotaxis of monocytes. This effect on wound healing appears to be hormone-sensitive. Regulator of chondrogenesis and osteogenesis and inhibits early healing of bone fractures. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:P84022}. Nucleus {ECO:0000250|UniProtKB:P84022}. Note=Cytoplasmic and nuclear in the absence of TGF-beta (By similarity). On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 (By similarity). Through the action of the phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (By similarity). Co-localizes with LEMD3 at the nucleus inner membrane (By similarity). MAPK-mediated phosphorylation appears to have no effect on nuclear import (By similarity). PDPK1 prevents its nuclear translocation in response to TGF-beta (By similarity). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm of the inner cell mass at the blastocyst stage (By similarity). {ECO:0000250|UniProtKB:P84022, ECO:0000250|UniProtKB:Q8BUN5}

Tissue Location

Highly expressed in the brain and ovary. Detected in the pyramidal cells of the hippocampus, granule cells of the dentate gyrus, granular cells of the cerebral cortex and the granulosa cells of the ovary

SMAD3-S213 Non-phospho Control Peptide - Images