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BMP signaling in skeletal muscle and bone

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Abbreviations

α SMA	α -smooth muscle actin
ActRII	activine type II receptor
ALK	activin receptor-like kinase
ALP	alkaline phosphatase
AON	antisense oligo nucleotides
ARS	Alizarin red staining
ASP-RNAi	Allele specific RNAi
BMP	Bone Morphogenetic Protein
BMPRII	BMP type II receptor
bp	base pair
BRE	BMP responsive element
BSA	bovine serum albumin
BSP	bone sialo protein
CA	constitutively activated
CM	conditional medium
Co-Smad	common-mediator Smad
CTX	cardiotoxin
DMD	Ducheunn Muscular Dystrophy
DMEM	Dulbecco's Modified Eagle Medium
DMSO	dimethylsulfoxid
Dpp	Decapentaplegic
DUB	deubiquitinating enzyme
EMT	epithelial mesenchymal transition
Endo-MT	endothelial mesenchymal transition
ERK	extracellular-signal regulated kinase

Abbreviations

FOP	Fibrodysplasia Ossificans Progressiva
GAPDH	glyceraldehyd-3-phosphat-dehydrogenase
GPI	glycosylphosphatidylinositol
GS domain	glycine- and serine residue rich domain
GSK	glycogen synthase kinase 3
HDAC	Histone deacetylase
Hfe2	hemojuvelin
HJV	hemojuvelin
HO	heterotopic ossification
Id1	inhibitor of DNA binding 1
Id3	inhibitor of DNA binding 3
I-Smad	Inhibitory Smad
JNK	c-Jun N-terminal kinases
MAPK	mitogen-activated protein kinase
Mi-RNA	micro RNA
mrSC	muscle residing stroma cell
MSC	mesenchymal stem cell
NSAIDS	nonsteroidal anti-inflammatory drugs
NSE	neuron specific enolase
OSC	osteocalcin
PCR	polymerase chain reaction
PECAM-1	platelet endothelial cell adhesion molecule-1
PEI	polyethylenimine
PPH	primary pulmonary hypertension
PPM1A	protein phosphatase magnesium-dependent 1A
PS1	phosphorylated Smad protein 1
Q-PCR	quantitative-PCR

RGM	Repulsive Guidance Molecules
R-Smad	Receptor regulated smad
RunX2	Runt-related transcription factor2
SARA	Smad anchor for receptor activation
SBE	Smad binding element
SCP	small C-terminal domain phosphatase
Smad	Sma- and Mad-related
shRNA	short hairpin RNA
si-RNA	small interfering RNA
TAK1	TGF β activated kinase-1
TGF β	transforming growth factor- β
TNF	Tumor necrosis factor
TRAF	TNF receptor-associated factor
Tsg	twisted gastrulation
Wnt	hybrid of Wg (wingless) and Int in Drosophila
USAG-1	Uterine sensitization-associated gene-1