

Table 2. Activin signaling as a target for therapeutic interventions

Disease	Therapeutic strategy	Methods	Ref
Muscular dystrophy Muscle atrophy	Increase of muscle mass by myostatin inhibition	Monoclonal MSTN Ab	[60, 65, 72]
		MSTN propeptide	[62, 63, 64]
		Soluble ActRIIB-Fc	[63, 70]
		Follistatin and its derivatives	[66, 67, 73, 116]
		HDAC inh	[113]
		MSTN siRNA	[117]
Osteoporosis	Increase of bone mass by activin inhibition	Soluble ActRIIA-Fc	[78]
		Inhibin A	[79]
Cancer			
tumor growth	Suppression by activin activation	Cripto silencing	[81]
		FLRG silencing	[82]
cachexia	Activin inhibition	Soluble ActRIIA-Fc	[88]
	Myostatin inhibition	Follistatin, MSTN propeptide	[115]
metastasis	Activin inhibition	Follistatin	[90]
angiogenesis and motility	Suppression by TGF- β /activin inhibition	ALK4, 5, 7 kinase inhibitors	[89, 91, 92, 94]
Neuron damage Depression	Recombinant Activin A application	Activin A	[102, 103, 104, 108]

Abbreviations: MSTN, myostatin; HDAC inh, histone deacetylase inhibitor