a)

2XPI Promoter Proximal de novo motifs

Motif	TF (-logP)
	SRF (13)
	PRDM1 (13)
	TFAP2A (12)
	SMAD2 (11)
	T-Box (11)

2XIn Promoter Proximal de novo motifs

Motif	TF (-logP)
	HLTF (14)
	ARNT (12)
	NKX6-3(11)
	HBP1 (11)
	SPI1 (11)

b)

2XPI GO Biological Processes

TermID	Term	logP
GO:0001568	blood vessel development	-56.171899
GO:0001944	vasculature development	-55.560821
GO:0072359	circulatory system development	-55.212132
GO:0072358	cardiovascular system development	-55.212132
GO:0051716	cellular response to stimulus	-55.157432
GO:0048523	negative regulation of cellular process	-53.700532
GO:0048514	blood vessel morphogenesis	-53.595828
GO:0009653	anatomical structure morphogenesis	-52.562521
GO:0044707	single-multicellular organism process	-52.562053
GO:0032501	multicellular organismal process	-52.339701
GO:0050896	response to stimulus	-52.012057
GO:0048513	organ development	-51.023085
GO:0007275	multicellular organismal development	-49.428051
GO:0048731	system development	-49.206795

2XIn GO Biological Processes

TermID	Term	logP
GO:0048523	negative regulation of cellular process	-62.916558
GO:0048519	negative regulation of biological process	-60.806442
GO:0050793	regulation of developmental process	-50.757228
GO:0048583	regulation of response to stimulus	-50.394575
GO:0009966	regulation of signal transduction	-50.278048
GO:0009888	tissue development	-47.970636
GO:0009653	anatomical structure morphogenesis	-47.576852
GO:0001944	vasculature development	-47.525648
GO:0001568	blood vessel development	-47.136352
GO:0048518	positive regulation of biological process	-46.541212
GO:0043067	regulation of programmed cell death	-45.988059
GO:0010941	regulation of cell death	-45.470952
GO:0048856	anatomical structure development	-44.358016
GO:0042127	regulation of cell proliferation	-44.204512