

Element	Designation	Function
activator (DNA-binding proteins)	Hap2/3/4/5 complex	activates transcription of proteins for respiratory functions
	Gal4	activates transcription of proteins for galactose and melobiose metabolism
	Mal63	activates transcription of proteins for maltose utilization
	Adr1, Cat8, Sip4	activates transcription of proteins for ethanol, glycerol and lactate utilization, as well as for gluconeogenic proteins
	Oaf1*	Activates transcription of proteins for oleate utilization
repressor (DNA-binding proteins)	Mig1 (Mig2, Mig3)**	recruits Ssn6-Tup1 complex (repressor complex) in glucose repressed genes
intermediate elements	Snf1	protein kinase (in complex with Snf4); derepression of glucose-repressed genes by phosphorylation of Mig1
	Glc7	protein phosphatase; dephosphorylation of Snf1
glucose signaling	Hxt-proteins	hexose transporter
	Snf3	glucose transporter
	Rgt2	glucose transporter
	Hxk-proteins	hexokinase phosphorylation of glucose

**Tab. 1.** Promoter interacting elements of catabolite repression in *Saccharomyces cerevisiae* reviewed [10]\*\*, [11], [12]\*