Abstract

TORC1 („Target Of Rapamycin“) is highly conserved serine-threonine kinase that regulates cell growth, metabolism, proliferation and apoptosis. Some of the regulators and mechanisms of regulation of TORC1 activity are conserved in different eukaryotic organisms. In mammalian cells mTORC1 („mammalian Target Of Rapamycin“) is present that is homologous to yeast TORC1. The correct regulation of TORC1 activity is required for vitality of organisms and thus TORC1 and its regulations are investigated by many researches. A mutation in a single protein that is a part of TORC1 regulating complexes may result in a serious damage to the cell and to the organism. This thesis aims to describe the known TORC1 regulators in yeast and, in some cases, to compare TORC1 and mTORC1 regulations. Information on mTORC1 regulations that have not yet been identified in budding yeasts is also included.

Keywords – TORC1, mTORC1, regulation, activity, yeast