Abstract

Prp45 is a SNW protein that is part of a spliceosome and therefore participates in splicing of pre-mRNA into mRNA. In spliceosome Prp45 joins as part of NTC complex before splicing reactions. Prp45 has several known interactional partners (such as small subunit of U2AF, Cyp2, Prp5, Prp22, Clf1 and Cwc3). These proteins serve many functions in the spliceosome from stability to regulation of splicing reactions.

Spliceosome consists of several dozens of proteins and several RNA and undergoes massive structural changes during executing its function. Until recently very little was known about the spliceosome structure; however, recent studies allow us to look at interaction network of this machine. In this work we focused on identification of both previously predicted and new interactional partners of Prp45. Using available spliceosome structures we aimed to describe these proteins structurally and functionally.

Key words: splicing, Prp45, 3D struktura, spliceosome, binding partners