

Abstract

Sensing mechanical stimuli by proteins and their conversion into biochemical signals in a mechanotransduction is the recently discussed topic in cell biology. The main molecules that cells use to sense mechanical stimuli, are membrane proteins that transmit the mechanical stimulus into the cell. In the cell are found protein complexes, which transmit the signal further. One of the most important protein that has the ability to change the mechanical stimuli to biochemical signals and transmit them to other protein is p130Cas. This work deals with the ability of p130Cas to sense mechanical stimuli and transmit them to other proteins and signaling pathways that regulate cellular response depending on the mechanical stress.

Key words: p130Cas, p130Cas/Crk komplex, mechanical stress