

Structure and function of annexin-S100 complexes

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Annexins are a family of Ca^{2+} -regulated membrane binding proteins involved in different membrane related events that include the regulation of membrane-cytoskeleton interfaces and certain membrane transport processes. Several annexins form specific and high affinity complexes with EF hand type Ca^{2+} -binding proteins, in particular those of the S100 protein family. We have characterized complex formation of annexin A1 with S100A11 and annexin A2 with S100A10. The latter appears to participate in the regulation of $\text{PI}(4,5)\text{P}_2$ rich domains in the plasma membrane and the surface delivery of a number of ion channels and receptors, which bind to the S100A10 protein. Structural aspects annexin-S100 complexes and the role of S100A10 interactions with the Ca^{2+} channel TRPV5 will be discussed.