

Characterization of AtDGK2 in relation to Contact Sites

Contact Sites are conserved cellular regions where two membranes of different organelles are very close but not merged. Contact sites between the endoplasmic reticulum (ER) and the plasma membrane (ER-PM CS) play important roles in metabolic functions. We have identified AtDGK2 (Diacylglycerol kinase 2) as an interactor of SYT1 (Synaptotagmin1), which is a protein located at ER-PM CS.

DGKs phosphorylate diacylglycerol to produce phosphatidic acid, both important signalling molecules. *Arabidopsis thaliana* has seven AtDGKs, but only AtDGK1 and AtDGK2 present an ER transmembrane domain, the rest are cytoplasmic. We have analysed the subcellular localization and functions of these two proteins.