RIMS1

The phosphorylation status of several positions of the active-zone (AZ) protein RIM1 are relevant for synaptic glutamate release. Position RIMS1045 is necessary and sufficient for expression of silencing-induced homeostatic plasticity and is kept phosphorylated by serine arginine protein kinase 2 (SRPK2). SRPK2-induced upscaling of synaptic release leads to additional RIM1 nanoclusters and docked vesicles at the AZ and is not observed in the absence of RIM1 and occluded by RIMS1045E. Our data suggest that SRPK2 and RIM1 represent a presynaptic phosphosignaling hub that is involved in the homeostatic balance of synaptic coupling of neuronal networks ¹⁾.

1)

Müller JA, Betzin J, Santos-Tejedor J, Mayer A, Oprişoreanu AM, Engholm-Keller K, Paulußen I, Gulakova P, McGovern TD, Gschossman LJ, Schönhense E, Wark JR, Lamprecht A, Becker AJ, Waardenberg AJ, Graham ME, Dietrich D, Schoch S. A presynaptic phosphosignaling hub for lasting homeostatic plasticity. Cell Rep. 2022 Apr 19;39(3):110696. doi: 10.1016/j.celrep.2022.110696. PMID: 35443170.

From: https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link: https://neurosurgerywiki.com/wiki/doku.php?id=rims1

Last update: 2024/06/07 02:55

