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Title:	Group I Metabotropic Glutamate Receptors (mGluRs): Ins and Outs
Authors:	Mahato, Prabhat Kumar (/jspui/browse?type=author&value=Mahato%2C+Prabhat+Kumar) Ramsakha, N. (/jspui/browse?type=author&value=Ramsakha%2C+N.) Ojha, P. (/jspui/browse?type=author&value=Ojha%2C+P.) Gulia, R. (/jspui/browse?type=author&value=Gulia%2C+R.) Sharma, Rohan (/jspui/browse?type=author&value=Sharma%2C+Rohan) Bhattacharyya, Samarjit (/jspui/browse?type=author&value=Bhattacharyya%2C+Samarjit)
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Abstract:	Glutamate is a nonessential amino acid, known to act as a major excitatory neurotransmitter in the central nervous system. Glutamate transduces its signal by activating two types of receptors, viz., ionotropic glutamate receptors and metabotropic glutamate receptors (mGluRs). mGluR1 and mGluR5 are members of the group I mGluR family, and they belong to the G-protein-coupled receptor (GPCR) family. These receptors are involved in various forms of synaptic plasticity including learning and memory. Similar to many other GPCRs, trafficking plays a critical role in controlling the spatiotemporal localization of these receptors on the cell surface, which is critical for the normal ligand/receptor interaction. Improper targeting of GPCRs results in aberrant signaling, which often leads to various diseases. Trafficking also regulates the activity of these receptors. Thus, inappropriate trafficking of these receptors might have pathological consequences. Group I mGluRs have been implicated in various neuropsychiatric disorders like Fragile X syndrome, autism, etc. In this review, we discuss the current understanding of group I mGluR trafficking in the central nervous system and its physiological importance
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