Title:	Chapter 7 - Analysis of ubiquitination and ligand-dependent trafficking of group I mGluRs
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Abstract:	Group I metabotropic glutamate receptors (mGluRs) are G-protein coupled receptors (GPCRs). They have been implicated in multiple forms of synaptic plasticity, as well as in various neuropsychiatric disorders. The signaling of these receptors is governed by the mechanisms of desensitization, internalization and resensitization of these receptors. Various post-translational modifications determine the signaling as well as trafficking of these receptors. Ubiquitination is a post-translational modification that has emerged as an essential regulatory process which governs group I mGluR trafficking. In this chapter, we have discussed the strategies to investigate the ubiquitination and the ligand-mediated trafficking of group I mGluRs in HEK293T cells and in primary hippocampal neurons, respectively. We have illustrated the protocols of (i) maintenance and transient transfection in HEK293T cells and primary hippocampal neurons, (ii) immunoprecipitation and western blot analysis to identify the ubiquitination of group I mGluRs, (iii) endocytosis and recycling assay and (iv) image acquisition and analysis.
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