Protein-protein interaction between ezrin and p65 in human breast cancer cells

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ABSTRACT. Our study aimed to investigate the co-localization and protein-protein interactions between ezrin and p65 in human breast cancer cells. Liquid chromatography-mass spectrometry (LCMS) was used to uncover novel protein interactions with ezrin in MDA-MB-231 cells. Endogenous co-immunoprecipitation was used to validate protein-protein interactions between ezrin and p65 in MDA-MB-231. Exogenous interactions between ezrin and p65 were validated in MDA-MB-231 cells via Flag-ezrin and HA-p65 co-transfection and followed by co-immunoprecipitation. Immunofluorescence staining was used to visualize ezrin and p65 co-localization in MDA-MB-231. LCMS results showed that there were 1000 proteins interacting with ezrin in MDA-MB-231 cells. Ezrin and p65 interactions were confirmed with both endogenous and exogenous methods. We were also able to visualize ezrin and p65 co-localization in MDA-MB-231. In summary, we found protein-protein interactions between Ezrin and p65 in human breast cancer cells.

Key words: Ezrin; p65; Breast cancer; Interaction