

Analysis of ubiquitin system regulating UV-damage in skin

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Ataxia-telangiectasia (AT) is an autosomal recessive genetic disease characterized by immunological deficiencies, neurological degeneration, developmental abnormalities and an increased risk of cancer. Cells isolated from AT patients show hypersensitivity to ionizing radiation, cell cycle abnormalities and aberrant cytoskeletal organization. The *ataxia-telangiectasia group D (ATDC/TRIM29)* gene was identified by its ability to suppress radiosensitivity of the cell line AT5BIVA from the D group complementation group of the AT. Recently, we showed that TRIM29 suppresses apoptosis induced by UV irradiation in HCT116 cell lines. In this study, we performed biochemical analysis of TRIM29 to clarify the function of TRIM29 under UV-irradiation or other DNA damages.