



Lenalidomide affect expression level of cereblon protein in multiple myeloma cell line RPMI8226

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ABSTRACT. We investigated the mechanisms of action of immunomodulatory drug (lenalidomide) on the protein expression of cereblon (CRBN) and their therapeutic targets in the multiple myeloma cell line RPMI8226. The multiple myeloma cell line RPMI8226 was cultured and treated with different concentrations of lenalidomide and bortezomib to determine the proliferation inhibition rate, apoptosis rate, and protein expression of CRBN. The results revealed that both lenalidomide and bortezomib inhibited the proliferation of RPMI8226 and promoted cell apoptosis. However, the protein expression of CRBN decreased significantly after treatment with lenalidomide, while bortezomib had no effect on the expression of CRBN. We confirmed that CRBN may be a target of lenalidomide.

Key words: Apoptosis; Bortezomib; Cereblon; Lenalidomide; Proliferation