RFWD2, the novel interaction protein of STAT3 in the leukemiagenesis of AML

Acute myeloid leukemia (AML) is a malignant disease of hematopoietic system, which is characterized by uncontrolled cell proliferation, abnormal differentiation of cells, infiltrating bone marrow, blood and peripheral tissues. RFWD2, also known as E3 ubiquitin ligase (COP1), participates in the regulation of cell growth, invasion, and metastasis. In hematological malignancies, RFWD2 promotes the occurrence and development of hematological malignancies by regulating the ubiquitination of C/EBP α and P53. However, whether it regulates the ubiquitination and degradation of STAT3 and thus participates in the occurrence and development of AML has not been reported yet. At the same time, recent studies have found that LncRNAs can regulate gene expression at multiple levels and are closely related to the occurrence and development of various diseases. This provides new ideas for understanding the molecular mechanism of RFWD2 downregulation in AML.