

P034 Intra -S- DNA damage checkpoint mediated by the spindle assembly factor TPX2

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The Microtubule (MT)-associated protein TPX2 is primarily defined as a factor required for mitotic spindle assembly and cell cycle progression. In interphase, which occupies a majority of the cell cycle time, TPX2 is actively imported in the nucleus, hypothetically to be segregated from Tubulin and prevent aberrant MT polymerization in the cytosol. We now report that TPX2 interacts directly with the Mediator of DNA damage checkpoint protein 1 (MDC1) in the nucleus and regulates the amplification of the DNA damage response and the intra-S-checkpoint.

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