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Selinexor

National Cancer Institute

Source

National Cancer Institute. *Selinexor*. NCI Thesaurus. Code C102546.

An orally available, small molecule inhibitor of CRM1 (chromosome region maintenance 1 protein, exportin 1 or XPO1), with potential antineoplastic activity. Selinexor modifies the essential CRM1-cargo binding residue cysteine-528, thereby irreversibly inactivates CRM1-mediated nuclear export of cargo proteins such as tumor suppressor proteins (TSPs), including p53, p21, BRCA1/2, pRB, FOXO, and other growth regulatory proteins. As a result, this agent, via the approach of selective inhibition of nuclear export (SINE), restores endogenous tumor suppressing processes to selectively eliminate tumor cells while sparing normal cells. CRM1, the major export factor for proteins from the nucleus to the cytoplasm, is overexpressed in a variety of cancer cell types.