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# Thioureidobutyronitrile

National Cancer Institute

## Source

National Cancer Institute. *Thioureidobutyronitrile*. NCI Thesaurus. Code C102881.

A water-soluble, small molecule and activator of the tumor suppressor protein p53, with potential antineoplastic activity. Upon intravenous administration, thioureidobutyronitrile activates p53 which in turn induces the expressions of p21 and PUMA (p53 up-regulated modulator of apoptosis), thereby inhibiting cancer cell growth and causing tumor cell apoptosis. Thioureidobutyronitrile may be effective in drug-resistant cancers with mutated p53. p53 tumor suppressor, a transcription factor regulating the expression of many stress response genes and mediating various anti-proliferative processes, is often mutated in cancer cells.