

[Open Peer Review on Qeios](#)

SHP2 Inhibitor TNO155

National Cancer Institute

Source

National Cancer Institute. *SHP2 Inhibitor TNO155*. NCI Thesaurus. Code C139559.

An inhibitor of protein tyrosine phosphatase (PTP) non-receptor type 11 (SHP2; src homology region 2 domain phosphatase; PTPN11), with potential antineoplastic activity. Upon oral administration, SHP2 inhibitor TNO155 binds to and inhibits SHP2. This prevents SHP2-mediated signaling, inhibits MAPK signaling and prevents growth of SHP2-expressing tumor cells. SHP2, an oncoprotein overexpressed in a variety of cancer cell types, regulates cell survival, differentiation and proliferation through activation of the RAS-RAF-ERK signaling pathway. SHP2 also regulates programmed cell death 1 (PD-1)-mediated signal transduction and is involved in immune checkpoint modulation.