

## Novel benzothiazole-piperazine derivatives with anticancer activity

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New series of benzothiazole-piperazine derivatives are synthesized and their cytotoxic activities are evaluated on colorectal (HCT-116), breast (MCF-7) and hepatocellular (HUH-7) cancer cell lines by sulforhodamine B assay. Results are compared with 5-fluorouracil as reference compound.

Dihalo substituted compounds BTP-2 (*N*-(6-ethoxybenzothiazole-2-yl)-2-[4-(2,6-dichlorobenzyl)piperazinyl]acetamide) (*HCT-116*: GI<sub>50</sub> = 0.4 μM; *HUH-7*: GI<sub>50</sub> = 0.7 μM; *MCF-7*: GI<sub>50</sub> = 2.6 μM) and BTP-7 (*N*-(6-ethoxybenzothiazole-2-yl)-2-[4-(4-bromo-2-fluorobenzyl)piperazinyl]acetamide) (*HCT-116*: GI<sub>50</sub> = 0.9 μM; *HUH-7*: GI<sub>50</sub> = 0.3 μM; *MCF-7*: GI<sub>50</sub> = 12.2 μM) are found to have highest cytotoxic activities in all studied cancer cell lines.

### Biography:

Professor Yarim has completed his Ph.D from Hacettepe University and postdoctoral studies from ETH-Zürich. Professor Yarim has studied anticancer drug design and she has authored several peer-reviewed reports. She has served on numerous review committees for the National Science Foundation in Turkey. She has served on the editorial boards for the *Pharmacologia*. She is a member of the QSAR Society.