



Turkish Journal of Medical Sciences

Turkish Journal
of

Medical Sciences

 [Keywords](#)
 [Authors](#)



medsci@tubitak.gov.tr

[Scientific Journals](#)
[Home Page](#)

Effects of aqueous garlic extract on oxidant/antioxidant status in 32D and 32Dp210 cell lines

Aslıhan AVCI¹, Asuman SUNGUROĞLU²,
İmge B. ERGÜDER¹, Güvem GÜMÜŞ
AKAY², Erdinç DEVRİM¹, Pınar ÖZKAL
BAYDIN², Nuray VAROL², İlker DURAK¹

¹Department of Biochemistry, Faculty of
Medicine, Ankara University, Ankara -
TURKEY

²Department of Medical Biology, Faculty
of Medicine, Ankara University, Ankara -
TURKEY

Abstract: To investigate the possible effects of aqueous garlic extract on the oxidant/antioxidant status and apoptosis in 32D (wild type mouse myeloid cell = normal) and 32Dp210 (BCR-ABL fusion gene (+) mouse myeloid cell = Chronic Myelocytic Leukemia cells) cell lines. Materials and methods: Aqueous garlic extract (10% w/v) was added into the cell line media with 2 different final concentrations (0.4% and 1%). At 0 h and at 24, 48, and 72 h later, the oxidant (malondialdehyde (MDA) level, and xanthine oxidase (XO) enzyme activity) and antioxidant (superoxide dismutase (SOD), glutathione peroxidase (GSH-Px), and catalase (CAT) enzyme activities) parameters were measured in the cell lines. Results: It was observed that the

garlic extract caused no change in the XO and antioxidant enzyme activities, but it increased the MDA level in the 32D cell line. However, significant increases were found in the MDA level, XO, and antioxidant enzyme activities in the