**YÖNTEMLER**

**Total Antioxidant Status (TAS)**

TAS levels were measured using commercially available kits (Relassay, Turkey). The novel

automated method is based on the bleaching of characteristic color of a more stable ABTS

(2,2 ′ - Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid)) radical cation by antioxidants. The

assay has excellent precision values, which are lower than 3%. The results were expressed as

mmol Trolox equivalent/L (Erel O. A novel automated direct measurement method for total

antioxidant capacity using a new generation, more stable ABTS radicalcation. Clin Biochem

2004;37:277-85.)

**Arylesterase**

Phenylacetate was used as a substrate to measure the

arylesterase activity. Enzymatic activity was calculated from the molar

absorption coefficient of the produced phenol, 1310 M−1 cm−1. One unit

of arylesterase activity was defined as 1 μmol phenol generated per

minute under the above conditions and expressed as U/L

**Sialic Acid**

This kit is an Enzyme-Linked Immunosorbent Assay (ELISA). The plate has been pre-coated with Human SA antibody. SA present in the sample is added and binds to antibodies coated on the wells. And then biotinylated Human SA Antibody is added and binds to SA in the sample. Then Streptavidin-HRP is added and binds to the Biotinylated SA antibody. After incubation unbound Streptavidin-HRP is washed away during a washing step. Substrate solution is then added and color develops in proportion to the amount of Human SA. The reaction is terminated by addition of acidic stop solution and absorbance is measured at 450 nm.