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2-Naphthol (2-NAP) PM2.5 Air Pollution ELISA

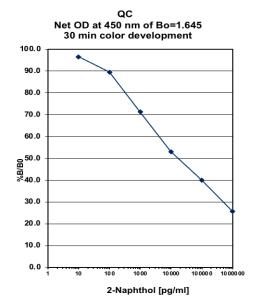
Cat # NAP1: ELISA kit for measuring 2-NAP in biological samples

This competitive ELISA kit is for determination of 2-NAP levels in biological samples (detection limit, <10 pg/ml).

The 2-NAP and metabolites were detected in urine samples (n=54) from male (43%) and female (57%) and sewage water samples collected for 5 days from 3 counties of Metro Detroit using the Detroit R&D 2-NAP ELISA^{1,2}. Burning fossil fuels and woods produce toxic PMs 2.5 and 10 mixed with polycyclic aromatic hydrocarbons (PAHs)^{3,4} which increase risk of cardiovascular diseases and lung cancer⁸⁻¹¹. Naphthalene is one of the major PAHs in the PMs (4.5%-13.5%)⁵. Inhaled PAHs through ambient air or occupationally exposed are biologically oxidized and excreted primarily by urine^{3,6}. Among various PAH metabolites, urinary 2-NAP level was significantly correlated with PM2.5 or PM10 exposure^{3,4,7}, especially after wood smoke exposure⁷. Burn pit smoke exposure may correlate to various health problems of soldiers. Asthma among children was significantly associated with urinary 2-NAP levels¹². The 2-NAP level in urine can be measured using the 2-NAP ELISA without ethyl acetate extraction after dilution of the sample. Each kit for triplicate analyses of up to 24 samples contains one 96-well plate, one tube of 2-NAP standard, one tube of 2-NAP-conjugated HRP and buffers for sample and HRP dilutions and plate washing.

Related ELISA Kits Oxidative Stress ELISA kit: - 8-Isoprostane ELISA kit Hypertension ELISA kits: -14,15-DHET ELISA kit -11,12-DHET ELISA kit - 20 HETE ELISA kit Environmental Estrogen ELISA kit: -BPA ELISA kit

-BPS ELISA kit



- Specificity of the 2-Naphthol ELISA
 2-Naphthol 100%
 8-Amino-2 naphthol <0.01%
 BPA <0.01%
 BPS <0.01%
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