



## Environmental Estrogen ELISA Kit **Bisphenol A (BPA)**

### Cat # BPA1: ELISA kit for measuring BPA in biological samples, food containers, wastewater and thermal paper

This competitive ELISA kit is for determination of BPA levels in biological samples, human and animal dietary food, water and wastewater. A typical standard curve of the ELISA (detection limit of less than 10 pg/ml) is shown in the bottom left corner. BPA is a phenolic environmental estrogen, which disrupts endocrine activity. In human, the BPA glucuronide was the primary metabolite of BPA and the age group with the highest BPA exposure levels was 6-11 years olds with a mean total (free + glucuronidated) BPA level of 4.33 ng/g of creatinine<sup>1</sup>. Urinary BPA levels have been correlated to cardiovascular diseases and diabetes<sup>1</sup>. A study revealed that a 12-ounce serving of canned soup for 5 days increased urinary BPA level 12-fold due to lining of the can with an epoxy resin containing BPA<sup>2</sup>. BPA levels in liquid obtained from canned soups (approximately 10 ng/mL) were measured using this ELISA kit<sup>8</sup>. Two recent studies have used the BPA ELISA kit to measure BPA levels in sewage, lake water and aquatic life<sup>2,3</sup> and the role of probiotics and plants in bio-removal of BPA<sup>5,10</sup>. BPA has also been implicated in glucose production and skeletal muscle insulin sensitivity<sup>7,11,13</sup>. BPA and BPS were detected in human milk by ELISA<sup>15</sup>.

BPA in urine can be measured without ethyl acetate extraction after a 4-fold dilution of the sample. Each kit is sufficient for the measurement of BPA in up to 24 triplicate samples and contains one 96 well plate, one vial of BPA standard, one vial of BPA-conjugated HRP, and buffers for sample and BPA-HRP conjugate dilutions, and plate washing.

#### Specificity of the BPA ELISA

BPA	100%
BPF	2.00%
BPS	<0.01%
Resveratrol	<0.01%

#### Related ELISA Kits

##### Environmental Estrogen ELISA kit:

-BPS ELISA kit

##### PM2.5 Air Pollution ELISA kit:

-2-Naphthol (2-NAP) ELISA kit

##### Oxidative Stress ELISA kit:

- 8-Isoprostane ELISA kit

##### Hypertension ELISA kits:

-14,15-DHET ELISA kit

-11,12-DHET ELISA kit

- 20 HETE FI ISA kit

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Net OD at 450 nm of  $B_0=2.536$   
 30 min color development

