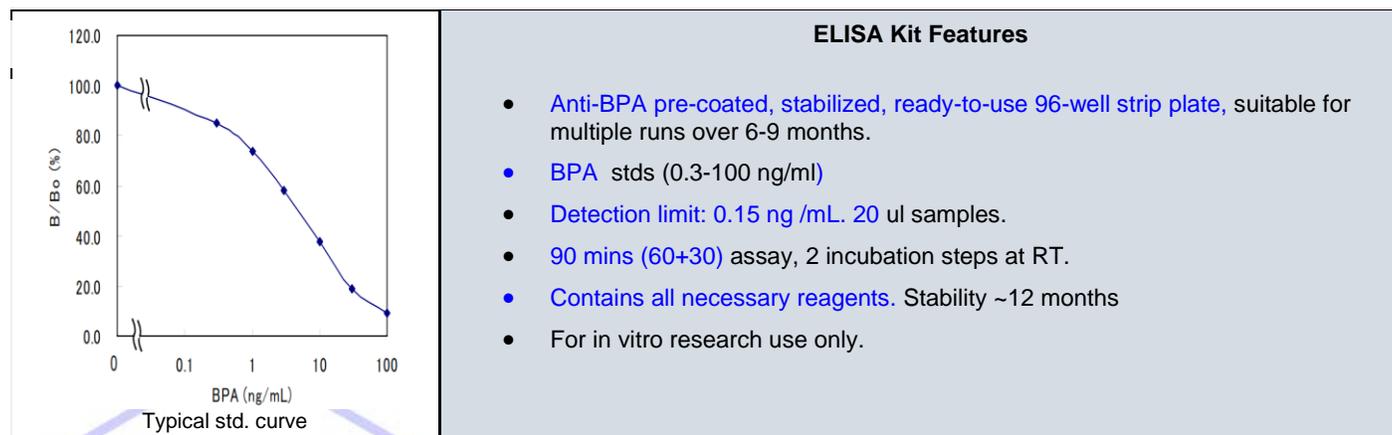


Bisphenol A (BPA) ELISA Kit, 96 tests, quantitative Cat# EE-210010

The Human Bisphenol A (BPA) ELISA kit is competitive ELISA intended for the quantitative detection of bisphenol A (BPA) in environmental samples or serum or plasma of human or animals. This kit is for all species. *For in vitro research use only (RUO).*



Assay Procedure: Allow all reagents to reach room temperature.

- Step 1. Pipet **20 ul** each of standards, samples into pre-coated wells. Add 50 ul of labeled BPA to all wells. Add 50 ul of anti-BPA to all wells. Mix gently for 5-10 secs. Cover and incubate for **60 min at room temp (RT, 25-28oC)**
- Step 2. Aspirate and wash 7X.
- Step 3. Add **100 ul of TMB substrate** to all wells. Mix gently, cover and incubate at **RT** for 30 min. Blue color develops in standards and samples.
- Step 4. Add 100 ul **stop** soln into each well and mix gently (blue color turns yellow). Measure absorbance at 450 nm.

Interpretation of results

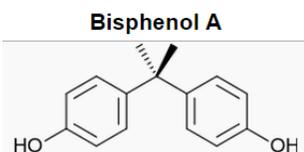
The mean values for the measured absorptions are calculated after subtraction of the blank values from the controls and standards.

Intraassay (range 1.3-31.15 ng/ml, CV% 5-14%)

Specificity: BPA (100%), BPA-Glucronide (85%), BPA-Na-Sulfate (68%), Bisphenol B (8.3%), Bisphenol F (0.2%).

The following compounds have <0.02%): Diethylstilbestrol, Hexesterol, 17β-Estradiol, 4-Heptylphenol, 4-n-Nonylphenol, 4-Propylphenol, 4-Hexyloxyphenol, 4-Pentylphenol, 4-Hexylphenol, 4-Butylphenol, 2-ter-Butylphenol, 4-Dodecylphenol, Di-n-Butyl-Phthalate, Benzyl-n-Butyl Phthalate, Daidzein, Genistein, Bis-GMA.

General Information



The bisphenols are a group of chemical compounds with two hydroxyphenyl functionalities. Most of them are based on diphenylmethane. Bisphenol A is the most popular representative of this group, often simply called "bisphenol" (with 2 hydroxyphenyl groups). BPA is employed to make certain plastics and epoxy resins. BPA-based plastic is clear and tough, and is made into a variety of common consumer goods, such as water bottles, sports equipment, CDs, and DVDs. Epoxy resins containing BPA are used to line water pipes, as coatings on the inside of many food and beverage cans and in making thermal paper such as that used in sales receipts. In Japan, more than 0.48 million tons of BPA are produced each year and the water survey report from ministry of the environment says that there is 0.11 µg/L of BPA in rivers. BPA exhibits estradiol-like properties that raise concern about its suitability in some consumer products and food containers. USA, the European Union and Canada have banned BPA use in baby bottles. World production capacity of this compound was more than 2.2 million tons in 2009. The CDC had found bisphenol A in the urine of 95% of adults sampled in 1988–1994[48] and in 93% of children and adults tested in 2003–04. While the EPA considers exposures up to 50 µg/kg/day to be safe, the most sensitive animal studies show effects at much lower doses, and several studies of children, who tend to have the highest levels, have found levels over the EPA's suggested safe limit figure.