

Cobalt Assay Kit

Cat. No. Kit-0236 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Cobalt Assay Kit is used for quantitating Co ²⁺ in a variety of samples.
Description	Cobalt is a hard, lustrous, grey metal, a chemical element (symbol Co, atomic number 27 and atomic mass 58.9). Cobalt is an essential trace-element for all multicellular organisms as the active center of coenzymes called cobalamins. These include vitamin B-12 which is essential for plants and animals. Cobalt is also an active nutrient for bacteria, algae, and fungi, and may be a necessary nutrient for all life. Cobalt, particularly the Co²⁺ species, forms complexes with a large number of organic and inorganic molecules with a range of extinction coefficients in the visible range. The Cobalt Assay kit takes advantage of the reaction of Co²⁺ with mercaptoethanol in basic media. Under the condition, Cobalt forms a complex with a strong absorbance band at 475 nm. The metal ions Fe²⁺, Cu²⁺, Ni²⁺, Zn²⁺, Mn²⁺, exhibit less than 10% interference at this wavelength. The kit provides a quick simple accurate method of quantitating Co²⁺ in a variety of samples. The assay is linear in the range 3 to 50 nmol (0.18-3 g) Cobalt, with a detection limit of ~ 3 nmol (or ~15 μg, 0.18 g).
Target Species	Mammals
Usage	For research use only (RUO)
Storage	Store kit at room temperature, keep tightly capped.
Kit Components	Cobalt Reagent 1 mlCobalt Chloride Standard (1.0 μmol): lyophilized 1 vial

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Detection method	Colorimetric
Compatible Sample Types	Biological Fluid, Cell Culture Supernatant, Plasma, Serum, Tissue Culture Supernatant, Urine