# General Cys/Cysteine ELISA Kit

E45K00755

**Catalog Number:**E45K00755

**Species Reactivity:**General

**Storage:**Store at +4°C. Please refer to protocols.

**Cite ID#:**EN5521205

**Type:**General ELISA Kits

**Description:**General Cys/Cysteine ELISA Kit is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit designed for the quantitative measurement of Cys in biological samples. Our rigorously validated, ready-to-go General Cys/Cysteine ELISA Kit use a simple protocol that easily integrates into your current processes, allowing you to rapidly and accurately detect Cys in your samples. Appropriate sample types may include Cell Culture Supernates, Serum, Platelet-poor EDTA Plasma, Platelet-poor Heparin Plasma, Urine. Precision Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested several times on one plate to assess intra-assay precision. Inter-Assay Precision (Precision between assays): Three samples of known concentration were tested in several separate assays to assess inter-assay precision. Assays were performed by at least two technicians using two lots of components.

**Assay type:**Competitive

**Detection principle:**Spectrophotometrical

**Sample type:**This immunoassay kit allows for the in vitro quantitative determination in Serum, plasma, tissue homogenates, cell culture supernates and other biological fluids.

**Sensitivity:**0.08 ng/mL

**Assay range:**0.312-20 ng/mL

**Kit components:**Assay Plate, Standard, Sample Diluent, Assay Diluent A&B, Detection Reagent A&B, Wash Buffer, Substrate, Stop Solution.

**Other reagents required:**Deionized or distilled water

**Gene Name:**Cys

**Function:**Cysteine (abbreviated as Cys or C) is an α-amino acid with the chemical formula HO2CCH(NH2)CH2SH. It is a semi-essential amino acid, which means that it can be biosynthesized in humans. Its codons are UGU and UGC. Cysteine was considered to be a hydrophilic amino acid based on the belief that the thiol group interacts well with water. However,

the cysteine side chain participates in the hydrophobic bonding system of the micelle. The quantitative comparison of the values of the critical micelle concentrations leads to the conclusion that the CH2SH group of amino acid has the same effect on the micelle stability as a methylene group of the hydrocarbon tail. Therefore, there is justification for the recently voiced assumptions of the hydrophobic nature of the cysteine side chain in proteins. The thiol side chain often participates in enzymatic reactions, serving as a nucleophile. The thiol is susceptible to oxidization to give the disulfide derivative cystine, which serves an important structural role in many proteins. When used as a food additive, it has the E-number E920.

**Form:**ELISA Kits