Human Cytochrome P450 CYP3A4 ELISA Quantitative Detection Kit

Cat. No. KITG-024 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	This ELISA kit is designed for the quantitative detection of Human Cytochrome P450 3A4 (CYP3A4) in cell culture supernatant, serum, and plasma samples. CYP3A4 is a key member of the cytochrome P450 enzyme family and plays a critical role in human drug metabolism. It can oxidize a variety of endogenous and exogenous substances. Research focuses on its substrate specificity, metabolic pathways, and drug interactions, which helps optimize drug efficacy and reduce adverse reactions.
Species	Human
Description	This kit employs a double-antibody sandwich ELISA technique. The capture antibody is pre-coated on the microplate to capture CYP3A4 in samples and standards. After washing, biotin-labeled detection antibody is added to form a 'capture antibody-antigen-detection antibody' immune complex. Streptavidin-conjugated horseradish peroxidase (SA-HRP) is then added. After incubation and washing, TMB substrate is added for color development. If the sample contains CYP3A4, the color turns blue. Stop solution is added to terminate the reaction. Free components are washed away during the detection process. The OD value is measured at 450nm using a microplate reader. The color intensity is proportional to the concentration of CYP3A4 in the sample. The concentration is calculated by plotting a standard curve.
Form	Ready-to-use ELISA Kit
Applications	Quantitative detection of Human CYP3A4 in cell culture supernatant, serum, and

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	plasma. For research use only. Not for use in diagnostic or therapeutic procedures.
Notes	Detection Range: 23.44 ~ 1500 pg/mL. Sensitivity: 11.72 pg/mL. Intra-assay CV: <10%. Inter-assay CV: <10%. Recovery in serum: 86-102% (mean 94%). Recovery in plasma: 90-106% (mean 98%). Recovery in cell culture supernatant: 94-110% (mean 102%). The kit recognizes recombinant human CYP3A4. No significant cross-reactivity observed with other related proteins at 50 ng/mL. Citrate anticoagulant plasma has not been validated and should be verified by the user. Hemolyzed samples are not suitable for this assay.
Storage	Store at 2-8°C. Valid for 6 months.
Shipping	Shipped at ambient temperature.
Usage	For research use only. Not for use in diagnostic or therapeutic procedures.

GENE INFORMATION

Gene Name	CYP3A4
Official Symbol	CYP3A4

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