

alpha-Ketoglutarate Assay Kit

Cat. No. Kit-0855 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	alpha-Ketoglutarate Assay Kit is used for quantifying alpha-KG.
Description	α-Ketoglutarate (α-KG) is a key intermediate in the Krebs cycle, coming after isocitrate and before succinyl CoA. Anaplerotic reactions replenish the cycle by synthesizing α-KG from transamination of glutamate, or through the action of glutamate dehydrogenase. α-KG is an important nitrogen transporter. Being a key intermediate, it is one of the organic acids measured in newborns as an indicator of inborn errors of metabolism. The α-Ketoglutarate Assay Kit provides a simple, sensitive and rapid means for quantifying α-KG in a variety of samples. In the assay, α-ketoglutarate is transaminated with the generation of pyruvate which is utilized to convert a nearly colorless probe to both color ($\lambda_{\text{max}} = 570 \text{ nm}$) and fluorescence (Ex/Em = 535/587 nm). The α-Ketoglutarate Assay Kit is useful for detecting α-ketoglutarate in the range of 0.01 to 10 nmoles.
Target Species	Mammals
Usage	For research use only (RUO)
Storage	Store kit at -20°C, protect from light. Warm α-KG Assay Buffer to room temperature before use. Briefly centrifuge all small vials prior to opening.
Kit Components	α-KG Assay Buffer 25 ml α-KG OxiRed Probe (in DMSO) 0.2 ml α-KG Converting Enzyme (lyophilized) 1 vial α-KG Development Enzyme Mix (lyophilized) 1 vial α-KG Standard (10 μmol, lyophilized) 1 vial

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