α-Ketoglutarate Assay

A plate based colorimetric/fluorometric assay to measure the concentration of α-Ketoglutarate in a wide range of sample types.

α-Ketoglutarate is a key intermediate in multiple pathways, playing essential roles in energy production, amino acid metabolism, and cellular homeostasis. In the TCA cycle, α-ketoglutarate is converted into succinyl-CoA, producing ATP. α-Ketoglutarate is a precursor for the synthesis of several amino acids, including glutamate and glutamine which are critical for neurotransmission, immune function, and cellular signaling. α-Ketoglutarate also acts as a signaling molecule, influencing gene expression and processes such as oxidative stress response and protein synthesis. AkrivisBio's α-Ketoglutarate Assay is a simple, sensitive way to measure this important molecule in a wide range of sample types, with a useful measurement range from 10 nmoles down to below 10 pmoles per well. In the assay, α-ketoglutarate is transaminated with the generation of pyruvate, which is oxidized by pyruvate oxidase forming hydrogen peroxide. Hydrogen peroxide is then utilized by the peroxidase to oxidize ADHP resulting in the formation of intense color or fluorescence measured at OD 570 nm or at Ex/Em = 535/587 nm respectively.

Ordering Information

Order Online »

AKR-MA-0141	100 wells

Manuals, SDS & CofA

View Online »

Handling & Storage

Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	Colorimetric detection
Species Reactivity	Species independent
Technical Info / Product Notes	For the Original Manufacturer's data sheet please click here.

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