Fumarate Colorimetric Assay Kit

Cat. No. Kit-2231 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Fumarate (HO2CCH=CHCO2H-) is an intermediate in the Kreb's cycle used by cells to metabolize food to form ATP. In the mammalian liver, Fumarate is also a product of the Urea cycle where its release in the cytosol leads to its conversion into malate and subsequently oxaloacetate while generating NADH in the cytosol. The human skin naturally produces fumaric acid when exposed to sunlight. In fact, fumaric acid esters have been used to treat psoriasis, possibly due to an impaired production of fumaric acid in the skin. Fumaric acid has also been used in beverages, baking powders and candy. Fumarate Assay Kit provides a convenient tool for sensitive detection of the fumarate in a variety of samples. The fumarate Enzyme Mix recognizes fumarate as a specific substrate leading to proportional color development. The amount of fumarate can therefore be easily quantified using a colorimetric assay (λ = 450 nm). It can detect as low as 1 nmol of fumarate per well (20 µM).
Applications	Kit can detect as low as 1 nmol of fumarate per well (20 µM).
Storage	-20°C
Shipping	Gel Pack
Size	100 assays
Kit Components	Fumarate Assay Buffer; Fumarate Enzyme Mix; Fumarate Developer; Fumarate Standard (0.1 M)

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Target Species	Mammalian
Detection method	Absorbance (450 nm)
Features & Benefits	Simple procedure; takes ~ 40 minutes; Fast and convenient

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