CREATIVE BIOMART®
Assay Kit

Total Polyamine Assay Kit (Fluorometric)

Product Information

Cat

Kit-1032

Common Name

Polyamine

Cat.No. Kit-1032

Description

Polyamines are small organic molecules bearing two or more primary amine moieties. Biogenic polyamines such as spermidine, putrescine and spermine function as transcellular signaling molecules and are involved in diverse biological processes. Although small amounts of polyamines are synthesized in cells, larger quantities are often encountered as a result of putrefaction and decay, as they are the direct product of decarboxylation of amino acids such as methionine, lysine and arginine. The enzyme ornithine decarboxylase generates the polyamine putrescine, which is not only responsible for repulsive odor but is also implicated in cancer. Intracellular polyamines readily bind DNA and are critical to preventing oxidative DNA damage and directing DNA double-strand break repair pathways. Polyamine levels decline with age and dietary supplementation of the polyamine spermidine has recently been shown to reduce age-related oxidative stress and extend lifespan in mouse models of aging. Total Polyamine Detection Kit enables the rapid determination of polyamine concentration in biological samples. A selective enzyme mix acts on polyamines, generating hydrogen peroxide that is then reacted with a fluorometric probe (Ex/Em = 535/587 nm) to yield a signal proportional to the amount of polyamine present. The kit includes a proprietary Sample Clean-Up reagent for pre-treating samples in order to eliminate common metabolites found in biological samples that may interfere with the assay or increase sample background. The assay is rapid, simple, and high throughput compatible, and can detect polyamine concentrations as low as 0.1 μM in tissue lysates and other samples such as saliva.

Applications

Measurement of polyamine content of various tissues/cell extracts
Determination of polyamine concentration in biological fluids

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Assay Kit

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Storage
-20°C
Shipping
Gel Pack
Size
100 assays
Kit Components
Polyamine Assay Buffer; Polyamine Probe (in DMSO); Polyamine Enzyme Mix; Polyamine Developer; Sample Clean-Up Mix; Polyamine Standard
Target Species
Mammalian
Detection method Fluorescence (Ex/Em = 535/587 nm)
Features & Benefits
Simple, highly sensitive, high-throughput compatible

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