

Glycine Assay Kit (Fluorometric)

Cat. No. Kit-1000 Lot. No. (See product label)

SPECIFICATION

Product Overview

Description

Glycine (GLY) is one of the 20 standard amino acids commonly found in proteins. GLY side chain is a hydrogen substituent, thus it is the only amino acid that is not chiral and the smallest among the proteogenic amino acids. Basic functions of Glycine include the participation in the synthesis of creatine, glutathione, heme groups, and conjugated bile acids (bile salts). It is also present as one of the most abundant residues in the triple-helical structure of collagen. It acts as a glucogenic amino acid regulating sugar levels in blood. Therefore, glycine supplementation has been used in patients suffering anemia, hypoglycemia and chronic fatigue. In cancer cells, GLY consumption is highly correlated to cancer cell proliferation, via purine synthesis. Glycine uptake in cancer cell studies supports the role of this amino acid in tumorigenesis and malignancy. GLY possesses both inhibitory and excitatory neurotransmitter functions in the brain stem and spinal cord. Glycine Assay Kit provides a simple, sensitive, and high-throughput adaptable assay that detects physiological concentration of glycine in a variety of biological fluids. The principle of the assay is based on the oxidation of glycine producing a fluorophore (Ex/Em = 535/587 nm) with a stable signal, which is directly proportional to the amount of GLY in the sample. The assay is specific and other standard and non-standard amino acids do not interfere with the assay. The assay can detect as little as 1 μ M of Glycine in a variety of samples.

Applications

Estimation of glycine in various biological samples

Storage

-20°C

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Shipping	Gel Pack
Size	100 assays
Kit Components	GLY Assay Buffer; GLY Probe; GLY Enzyme Mix; GLY Developer; GLY Standard
Target Species	Mammalian
Detection method	Fluorescence (Ex/Em 535/587 nm)
Features & Benefits	Simple, rapid & convenient assay; Limit of detection: 1 μ M; Very specific, does not interact with other standard and non-standard amino acids

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