CREATIVE BIOMART®
Assay Kit

Fluoro GST Activity Kit

Product Information

Cat.No. Kit-0397

Product Overview

The Fluoro GST-Glutathione S-Tranferase Fluoescence Activity Kit is designed to quantitatively measure the activity of GST pres-ent in a variety biological samples such as serum, plasma, urine and cell lysates. The kit utilizes a non-fluorescent molecule that is a substrate for the GST enzyme that covalently attaches to glutathione (GSH) to yield a highly fluoescent product.

Description

The Glutathione S-Transferase (GST) family of isozymes function to detoxify and neutralize a wide variety of electrophilic molecules by mediating their conjugation with reduced glutathione. Human GSTs are encoded by 5 gene families, expressing in almost all tissues as four cytosolic and one microsomal forms. Dividing the family by isoelectric points, the basic alpha (pI 8-11), the neutral mu (pI 5-7) and acidic pi (pH<5) classes="" are="" populated="" by="" additional="" subclasses,="" each="" isozyme="" displaying="" differential="" specificity="" for="" given="" electrophilic="" molecules.given="" its="" pivotal="" role="" in="" ameliorating="" oxidative="" stress/damage,="" gst="" activity="" has="" been="" repeatedly="" investigated="" as="" a="" biomarker="" for="" arthritis,="" asthma,="" copd,="" and="" multiple="" forms="" of="" cancer,="" as="" well="" as="" an="" environmental="" marker.="" examination="" of="" gst="" isoforms="" and="" activity="" in="" human="" cancers,="" tumors="" and="" tumor="" cell="" lines="" has="" revealed="" the="" predominance="" of="" the="" acidic="" pi="" class.="" furthermore,="" this="" activity="" is="" thought="" to="" substantially="" contribute="" to="" the="" innate="" or="" acquired="" resistance="" of="" specific="" neoplasms="" to="" anticancer=""></5)>

Applications

The Fluoro GST kit is designed to detect Glutathione S-Transferase activity in biological samples such as serum, plasma, urine and cell lysates.

Usage

1. For Research use only. Not for use in diagnostic procedures.2. Practice safe laboratory procedures by wearing gloves, protective clothing and eyewear.3. Dimethyl sulfoxide is a powerful aprotic organic solvent that has been shown to enhance the rate of skin absorption of skin-

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permeable substances. Wear protective gloves when using the solvent especially when it contains dissolved chemicals. NOTE: DMSO can dissolve certain plastics used in troughs used for holding solutions for multichannel pipettes,4. As with all such products, this kit should only be used by qualified personnel who have had laboratory safety instruction. The complete insert should be read and understood before attempting to use the product.

Storage

1. Long Term Storage: Store contents as labeled2. Upon Arrival: 2-8°C

Kit Components

Reagent-Storage Temperature1. Black Half Area Well Plate: 2-8°C;2. Glutathione S-Transferase Standard: 2-8°C3. GST DEtection Reagent: 2-8°C;4. Dry DMSO: 2-8°C;5. Assay Buffer: 2-8°C;6. Glutathione (GSH): 2-8°C

Features & Benefits

1. Quick 10 minute assay.2. Can monitor multiple time points to follow kinetics.3. Dual mode, can detect H202 or peroxidase activity.4. One-step, no wash assay.5. Adaptable for High Throughput format.6. Non-destructive cell based assay allows monitoring of additional parameters.7. Applications-Fluorescent Plate Reader.