

# Glutaminase Activity Assay Kit

Cat. No. Kit-0981 Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	<p>Glutaminase (EC 3.5.1.2) is a mitochondrial enzyme that hydrolyzes glutamine producing glutamate and ammonia. GLS is one of the two key enzymes that are responsible for glutamine homeostasis, the other being glutamine synthetase. Since glutamine is a major metabolic substrate involved in gluconeogenesis, its homeostasis is tightly controlled. Glutaminase has tissuespecific roles in multiple organs, with the isoform GLS1 being expressed in kidneys and brain, and GLS2 being expressed in the liver. It is involved in maintenance of acid-base homeostasis by producing ammonia during renal acidosis in kidneys; and regulation of glutamate –which acts as a neurotransmitter- in the brain. On the other hand, GLS 2 regulates the generation of ammonia in liver by producing urea. Research shows GLS increased activity in individuals facing starvation, diabetes and high protein diets. This Glutaminase Activity Assay Kit is a simple plate-based fluorometric assay for measuring glutaminase activity in biological samples. GLS hydrolyzes glutamine forming glutamate and ammonia. Glutamate, in the presence of a developer and enzyme mix converts a non-fluorescent probe to a fluorescent product via an enzymatic reaction. The assay can detect as low as 2 <math>\mu</math>U of glutaminase in biological samples.</p>
<b>Size</b>	100 Test
<b>Storage</b>	On receipt entire assay kit should be stored at -20°C, protected from light.
<b>Applications</b>	Measurement of Glutaminase activity in cell and tissue lysates using a 96-well plate format.

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**Notes**

For the measuring of glutaminase activity in biological samples. For research use only.

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