ARG83048
Glutamine Assay Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG83048 Glutamine Assay Kit is a detection kit for the quantification of Glutamine in Urine, Serum, Plasma, Tissue extracts, Cell lysate, and Cell culture media.
Tested Reactivity	All
Tested Application	FuncSt
Target Name	Glutamine
Conjugation Note	Read at 420 nm.
Detection Range	0.1 - 10 µmol/mL
Sample Type	Urine, Serum, Plasma, Tissue extracts, Cell lysate, Cell culture and other biological fluids.
Sample Volume	20 µl
Alternate Names	Glutamine, Gln, Q

Application Instructions

Assay Time	90 min

Properties

Form	96 well
Storage instruction	Store kit reagents between 2-8°C. Immediately after use remaining reagents should be returned to cold storage (2-8°C).
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Background	Glutamine (symbol Gln or Q)is an α-amino acid that is used in the biosynthesis of proteins. Its side chain is similar to that of glutamic acid, except the carboxylic acid group is replaced by an amide. It is classified as a charge-neutral, polar amino acid. It is non-essential and conditionally essential in humans, meaning the body can usually synthesize sufficient amounts of it, but in some instances of stress, the body's demand for glutamine increases, and glutamine must be obtained from the diet.It is encoded by the codons CAA and CAG. In human blood, glutamine is the most abundant free amino acid. The dietary sources of glutamine include especially the protein-rich foods like beef, chicken, fish, dairy products, eggs, vegetables like beans, beets, cabbage, spinach, carrots, parsley, vegetable juices and also in wheat, papaya, Brussels sprouts, celery, kale and fermented foods like miso.
Function	Glutamine plays a role in a variety of biochemical functions: *Protein synthesis, as any other of the 20 proteinogenic amino acids. *Lipid synthesis, especially by cancer cells.. *Regulation of acid-base balance in the kidney by producing ammonium. *Cellular energy, as a source, next to glucose. *Nitrogen donation for many anabolic processes, including the synthesis of purines. *Carbon donation, as a source, refilling the citric acid cycle.

*Nontoxic transporter of ammonia in the blood circulation.
*Integrity of healthy intestinal mucosa, though small randomized trials have shown no benefit in Crohn's disease

Highlight