



GLUTAMINASE from *E. coli* (Lot 90601g)

Recombinant

E-GLUTEC

(EC 3.5.1.2)

10/20

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 33,968)
- Single major band on isoelectric focusing (pI ~ 5.3)

2. SPECIFIC ACTIVITY:

515 U/mg protein at pH 4.9 and 25°C;
 ~ 1791 U/mg protein at pH 4.9 and 37°C.

One Unit of glutaminase is defined as the amount of enzyme required to deaminate one μ mole of L-glutamine to L-glutamate + NH_4^+ under the following assay conditions:

Sodium acetate buffer, pH 4.9	40 mM
L-Glutamine	40 mM

Liberated NH_4^+ was measured using the Ammonia (Rapid) Assay Kit (**K-AMIAR**). Refer to the Ammonia (Rapid) Assay Kit booklet at www.megazyme.com.

3. OTHER ACTIVITIES (as a percentage of glutaminase activity):

Enzyme Measured	Substrate	Activity, %
Glutaminase	L-glutamine	100
NADH oxidase	NADH	< 0.0001
NADPH oxidase	NADPH	< 0.0001

4. CONTAMINANTS:

Impurities	Specification
Free Ammonium (NH_4^+)	< 0.001 $\mu\text{g}/\text{Unit}$

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 4.9 and up to 37°C.

6. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

The enzyme is supplied as a lithium sulphate suspension and should be stored at 4°C. For assay, this enzyme should be diluted in 5 mM sodium acetate buffer, pH 4.9. **Swirl to mix the enzyme suspension immediately prior to use.**