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L-Glutamate KIT YAMASA NEO

L-Glutamate Assay Kit NEO

This kit is based on a colorimetric method for the determination of L-glutamate using **L-glutamate oxidase** which exclusively acts on L-glutamate.

Contains

1.	R1 enzyme reagent solution	30 mL	1 bottle
2.	R2 enzyme reagent solution	30 mL	1 bottle
3.	**L-Glutamate Standard solution** (250 mg/L)	0.5 mL	1 vial

Preparation for the Assay

All kit components are ready-to-use. Components and samples are warmed up to 20 - 30 ℃ before use.

Assay Procedure

1. Add 10 μL of sample and 900 μL of distilled water to tubes for Blank 2 (B).
   Stand those tubes of (B) until measuring absorbance at 20 - 30 ℃.
2. Add 10 μL each of sample (A) or **Standard solution** (S) or distilled water for Blank 1 (R) to each tube.
3. Add 450 μL of **R1 enzyme reagent solution** to tubes of (A), (S), and (R).
4. Mix each tube.
5. Stand each tube for 20 min at 20 - 30 ℃.
6. Add 450 μL of **R2 enzyme reagent solution** to tubes of (A), (S), and (R).
7. Mix each tube.
8. Stand each tube for 20 min at 20 - 30 ℃.
9. Measure absorbance of all tubes at 555 nm using distilled water as a reference.
10. Calculate the concentration of L-glutamate as followings;
    L-glutamate (mg/L) = (A - B - R) / (S - R) x 250 x (dilution ration)

Standard Procedure for the Assay

	Sample	Standard	Blank 1	Blank 2
Sample	10 μL	-	-	10 μL
Standard Solution	-	10 μL	-	-
Distilled water	-	-	10 μL	900 μL
R1 enzyme reagent solution	450 μL	450 μL	450 μL	-
R2 enzyme reagent solution	450 μL	450 μL	450 μL	-
Absorbance at 555nm	A	S	R	B

Storage and Stability

※ This kit is stable for 18 months at 2 - 8 ℃.

Reference

1. Kusakabe H. et al., Agric. Biol. Chem., 47, 1323-1328, 1983
2. Kusakabe H. et al., Agric. Biol. Chem., 48, 181-184, 1984