

FUJIFILM

Wako

Code No. 208-13954 (100 mg)
204-13951 (500 mg)
200-13953 (1 g)

Trypsin, from Bovine Pancreas

Source : Bovine pancreas

Appearance : White ~ slightly yellow, crystalline powder ~ powder

Activity : Indicated on the label.

Molecular weight : 23,800

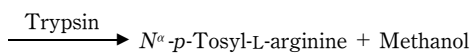
Optimal pH : approx. 8.0

Isoelectric point : 10.5

Assay Method

1. Principle

N^α -*p*-Tosyl-L-arginine Methyl Ester (TAME) + H₂O



2. Reagents

A. 0.046 mol/L Tris-HCl buffer, pH 8.2

Dissolve 0.56 g of 2-Amino-2-hydroxymethyl-1,3-propanediol (Tris) and 0.15 g of Calcium Chloride Dihydrate in 20 mL of water. After adjusting pH to 8.2 using Hydrochloric Acid (Hydrochloric acid/water = 1/10 (v/v)), dilute with water to bring the volume up to 100 mL.

B. 0.01 mol/L TAME solution

Dissolve 0.19 g of N^α -*p*-Tosyl-L-arginine Methyl Ester Hydrochloride in water for a volume of 50mL.

C. 0.001 mol/L Hydrochloric acid

D. Trypsin solution

Dissolve Trypsin with Reagent C to the concentration of 10 ~ 20 μ g/mL.

3. Procedure

Reagent	Test	Blank
A	2.6 mL	2.6 mL
B	0.3 mL	0.3 mL
Pre-incubate at 25 °C for 5 minutes.		
D	0.1 mL	—
C	—	0.1 mL

Immediately, record the absorbance of 247 nm at 25 °C for 5 minutes with deionized water as a reference.

Trans *

直ちに、25 °Cで、波長 247 nmにおける吸光度を水を対照液として 5 分間自記記録する。

4. Unit Definition

One TAME unit is the amount of enzyme which hydrolyzed 1 μ mol of N^α -*p*-Tosyl-L-arginine Methyl Ester (TAME) per minute at 25 °C, pH 8.2 in the presence of 0.01 mol/L calcium ion.

1 TAME unit = 19.2 USP units = 57.5 BAEE units

(Calculation)

$$\text{TAME units/mg} = (E_1 - E_2) \times \frac{1}{0.54} \times \frac{a \times 3}{S \times 0.1}$$

E_1 : Absorbance change per minute in test

E_2 : Absorbance change per minute in blank

0.54 : Molecular extinction coefficient of N^α -*p*-Tosyl-L-arginine

0.1 : The trypsin solution used (mL)

S : The weighed trypsin (mg)

a : Dilution rate

Trans *

4. 単位の定義

前記の条件下、pH 8.2、25 °C、0.01 mol/Lカルシウムイオンの存在下において 1 分間に 1 μ molの N^α -*p*-トシル-L-アルギニンメチルエステル（TAME）を加水分解する酵素量を 1 TAME unitとする。

1 TAME unit = 19.2 USP units = 57.5 BAEE units

(計 算)

$$\text{TAME units/mg} = (E_1 - E_2) \times \frac{1}{0.54} \times \frac{a \times 3}{S \times 0.1}$$

E₁ : 本試験の 1 分間当たりの吸光度変化

E₂ : 空試験の 1 分間当たりの吸光度変化

0.54 : *N*^α-*p*-トシル-L-アルギニンの分子吸光係数

0.1 : 本品溶液の使用量 (mL)

S : 量り取った本品の質量 (mg)

a : 希釈倍数

〔Storage〕 Store at − 20 °C in the dark.

〔Package〕

Code No.	Packaging
208-13954	100 mg
204-13951	500 mg
200-13953	1 g

* : Trans is the Japanese translation.

FUJIFILM Wako Pure Chemical Corporation

1-2, Doshomachi 3-Chome, Chuo-Ku, Osaka 540-8605, Japan
Telephone : + 81-6-6203-3741
Facsimile : + 81-6-6201-5964
<http://fwk.fujifilm.co.jp>

FUJIFILM Wako Chemicals U.S.A. Corporation

1600 Bellwood Road
Richmond, VA 23237
U.S.A.
Telephone : + 1-804-271-7677
Facsimile : + 1-804-271-7791
<http://www.wakousa.com>

FUJIFILM Wako Chemicals Europe GmbH

Fuggerstrasse 12
D-41468 Neuss
Germany
Telephone : + 49-2131-3111-0
Facsimile : + 49-2131-311100
<http://www.wako-chemicals.de>

2308KA2