# **RNase T1, AOF**

Code No. 2152A	Size: Conc.:	100 KU 1,000 U/μI
Code No. 2152B	Size: Conc.:	500 KU 1,000 U/μI

#### **Description:**

RNase T1, AOF (Animal Origin Free) is an endoribonuclease that specifically recognizes and cleaves single-stranded RNA molecules at guanine bases. It hydrolyzes the phosphodiester bond on the 3' side of guanine bases.<sup>1</sup>) This enzyme does not require metal ions for its activity and is inhibited by divalent metal ions such as Mg<sup>2+</sup> and Ca<sup>2+,2</sup>)

### Product Quality:

- 1. This product does not contain any human- or animal-derived materials in the final formulation.
- 2. This product does not contain any β-lactam compounds in the final formulation.

#### Storage Buffer:

50 mM Tris-HCl, pH 7.5 50% Glycerol

Storage: -20℃

Note: Avoid repeated freeze-thaw cycles.

#### Source:

*Escherichia coli* carrying a plasmid containing the gene for Ribonuclease T1 from *Aspergillus oryzae* 

#### **Properties:**

Molecular mass	:	approx. 11 kDa
Optimum pH	:	about pH 7.5

### **Unit Definition:**

One unit is the amount of enzyme that increases the absorbance at 260 nm by 1.0 in 15 minutes at 37°C and pH 7.5, using carrier RNA as the substrate.

#### **Reaction Mixture for Unit Definition:**

50 mM	Tris-HCl, pH 7.5 (37°C)
2 mM	EDTA, pH 7.5
0.2 mg/ml	Carrier RNA

#### **Quality Control Data:**

Please see the Certificate of Analysis (CoA) for each lot. You can download the CoA on Takara Bio website.

# Applications:

1. RNA removal from DNA preparations

2. Analysis of Poly(A) length of mRNA

#### **References:**

1) Takahashi K and Moore S. The Enzymes (ed. Boyer, P.D).

- Academic Press, New York. (1982) Vol. 15B, 3rd ed., 435-468.
- 2) Sato K and Egami F. J Biochem. (1957) 44(11): 753-767.

# Note

This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals. Also, do not use this product as food, cosmetic, or household item, etc. Takara products may not be resold or transferred, modified for resale or transfer, or used to manufacture commercial products without written approval from Takara Bio Inc. If you require licenses for other use, please contact us from our

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#### ● 製品説明

RNase T1, AOF (Animal Origin Free) は、一本鎖 RNA 分子中のグアニン 塩基を特異的に認識し分解するエンドリボヌクレアーゼである。グアニ ン塩基の 3' 側のホスホジエステル結合を加水分解する。<sup>1)</sup>

本酵素の活性に金属イオンは不要であり、Mg<sup>2+</sup> や Ca<sup>2+</sup> 等の 2 価の金属 イオンによって阻害される。<sup>2)</sup>

#### ● 品質

本製品の最終組成液には、ヒトまたは動物由来成分、およびβラクタム 系化合物は含まれません。

#### ● 形状

50 mM Tris-HCl, pH7.5 50% Glycerol

# ●保存 - 20°C

※ 凍結融解の繰り返しは避けてください。

#### ● 起源

*Escherichia coli* carrying a plasmid containing the gene for Ribonuclease T1 from *Aspergillus oryzae* 

## ● 一般的性質

質量 : 約 11 kDa 至適 pH: 約 pH7.5

#### ● 活性の定義

Carrier RNAを基質とし、37℃、pH7.5、15分間で260 nmの吸光度を1.0増加 させる酵素量を10とする。

#### ● 活性測定用反応液組成

50 mM Tris-HCl, pH7.5 (37°C) 2 mM EDTA, pH7.5 0.2 mg/ml Carrier RNA

#### ● 品質管理データ

性能試験結果については、各ロットの Certificate of Analysis (CoA) をご 覧ください。CoAはタカラバイオウェブサイトからダウンロードできます。

#### ● 用途

- 1. DNA 調製物からの RNA 除去
- 2. mRNAの Poly(A) 鎖長解析

#### ● 参考文献

- 1) Takahashi K and Moore S. The Enzymes (ed. Boyer, P.D). Academic Press, New York, (1982) Vol. 15B, 3rd ed., 435-468.
- 2) Sato K and Egami F. *J Biochem*. (1957) **44**(11): 753-767.



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