

Title	Effect of additional TN-I on the tension development of glycerinated fiber in skeletal muscle
Sub Title	
Author	中山, 雪麿(Nakayama, Yukimaro) 山口, 正弘(Yamaguchi, Masahiro) 青木, 裕美(Aoki, Hiromi) 渡辺, 和子(Watanabe, Kazuko)
Publisher	共立薬科大学
Publication year	1987
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.32 (1987.) ,p.50- 50
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000032-0050

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

Effect of Additional TN-I on the Tension Development of Glycerinated Fiber in Skeletal Muscle*

Yukimaro NAKAYAMA, Masahiro YAMAGUCHI**, Hiromi AOKI, and Kazuko WATANABE***

中山雪麿, 山口正弘**, 青木裕美, 渡辺和子***

It was examined the effect of additional TN-I on the tension development of glycerinated fiber in skeletal muscle. After treatment with TN-I for 24 h at 0°C under a buffer A solution (120 mM KCl, 2 mM MgCl₂, 4 mM EGTA and 20 mM Tris-maleate pH 6.8), the treated fiber depressed the latent period, the rate of rise and maximum tension development in contactation at keeping the Ca²⁺-dependent regulation. At this time, the peptides having 26 K and 28 K daltons were found on SDS-PAGE patterns from the buffer A solution after treatment of the fiber with TN-I. But, these peptides could not be found at the treatment of the fiber together with TN-I and -T. On the other hand, 26 K and 28 K peptides were also observed from the reaction mixture of myosin or heavy meromyosin with TN-I. These facts indicate that these peptides isolated from myosin head by a proteolytic action of TN-I, which was completely inactivated with TN-T.

From these results, it was suggested that TN-I treated fiber depressed the latent period, the rate of rise and the tension development in muscle contraction according to the damage of some myosin heads on the thick filaments in contractile unit.

* 本報告は *J. Physiol. Soc. Japan* 49, 497 (1987) に発表.

** 順天堂大学体育学部栄養生化学

*** 日本大学理工学部生物学