

# Author's Accepted Manuscript

Label-free detection of histone based on cationic conjugated polymer-mediated fluorescence resonance energy transfer

Xiaozhen Lu, Hongxia Jia, Xiaohua Yan, Jingsha Wang, Yucong Wang, Chenghui Liu



PII: S0039-9140(17)31207-9  
DOI: <http://dx.doi.org/10.1016/j.talanta.2017.12.007>  
Reference: TAL18143

To appear in: *Talanta*

Received date: 15 August 2017  
Revised date: 28 November 2017  
Accepted date: 2 December 2017

Cite this article as: Xiaozhen Lu, Hongxia Jia, Xiaohua Yan, Jingsha Wang, Yucong Wang and Chenghui Liu, Label-free detection of histone based on cationic conjugated polymer-mediated fluorescence resonance energy transfer *Talanta*, <http://dx.doi.org/10.1016/j.talanta.2017.12.007>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# Label-free detection of histone based on cationic conjugated polymer-mediated fluorescence resonance energy transfer

Xiaozhen Lu<sup>a</sup>, Hongxia Jia<sup>a</sup>, Xiaohua Yan<sup>a</sup>, Jingsha Wang<sup>a</sup>, Yucong Wang<sup>a\*</sup>, Chenghui Liu<sup>b</sup>

<sup>a</sup>Key Laboratory of Medicinal Chemistry and Molecular Diagnosis, Ministry of Education; College of Chemistry and Environmental Science, Hebei University, Baoding 071002, Hebei Province, P. R. China

<sup>b</sup>Key Laboratory of Analytical Chemistry for Life Science of Shaanxi Province, School of Chemistry and Chemical Engineering, Shaanxi Normal University, Xi'an 710119, Shaanxi Province, P. R. China

\*Corresponding author. Tel.: +86 312 5079403; fax: +86 312 5079403.  
wangyucong@hbu.edu.cn

## Abstract

A simple and homogeneous histone assay is developed based on histone-induced DNA compressing coupled with cationic conjugated polymer (CCP)-mediated fluorescence resonance energy transfer (FRET). In this strategy, the CCP serves as the FRET donor and SYBR Green I (SG), which can strongly fluoresce not at its free state but after intercalated into the double stranded calf thymus DNA (dsDNA), serves as the acceptor of FRET. In the absence of histone, the dsDNA-SG and CCP combine

Download English Version:

<https://daneshyari.com/en/article/7677040>

Download Persian Version:

<https://daneshyari.com/article/7677040>

[Daneshyari.com](https://daneshyari.com)