

# Zika Virus NS3-NS2B Protease Activity Assay Kit



## Product Description (Product Numbers PZ32AK01 and PZ32AK05)

Zika virus NS3-NS2B protease is prepared by co-expressing the separate subunits in *E. coli* cells and purified by in-house methods. The enzyme is supplied in Dilution Buffer (see CoA for each batch for actual concentration) and the kit contains fluorescent substrate sufficient for either 100 or 500 along with the microtitre plate. For larger kit sizes it is recommended that the enzyme is aliquoted and stored in -20 or -80 °C to avoid repeated freeze-thaw cycles.

For *in vitro* laboratory research use only.

### Assay Buffer (10X)

(final 1X concentration)

25 mM Tris.HCl (pH 7.6)  
0.5 mM EDTA  
5% glycerol

### Dilution Buffer (10X)

(use at 1X concentration)

25 mM Tris.HCl (pH 7.6)  
0.5 mM EDTA  
5% glycerol  
1 mM DTT  
12.5 mM NaCl  
10 µg/ml Albumin

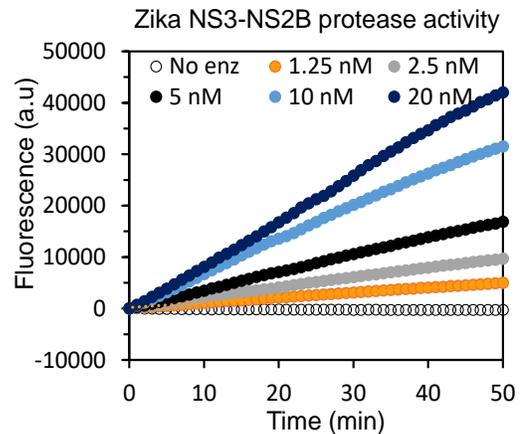
### BZ-Nle-KRR-AMC

(substrate)

0.2 mM  
in Assay buffer (10X) with 1%DMSO

## Protease activity Assay

1. BZ-Nle-KRR-AMC substrate when incubated with the protease in assay conditions in a total reaction volume of 100 µl at 37 °C will result in an increase in the fluorescence emission at 440-460 nm (with excitation at 340-360nm)
2. 5 to 10 nM of the Zika virus NS3-NS2B protease enzyme digests the fluorescent substrate to give a good level of signal.



## Quality Control

1) Purity: Zika virus NS3-NS2B protease is purified to > 95 % purity as judged by SDS-polyacrylamide gel electrophoresis.

## Reference

1 S. Nie, J. Zhao, X. Wu, Y. Yao, F. Wu, Y. Lin, X. Li, A.R. Kneubehl, M.B. Vogt, R. Rico-hesse, Y. Song (2021) Synthesis, structure-activity relationship and antiviral activity of indole-containing inhibitors of Flavivirus NS2B-NS3 protease. Eur. J. Med. Chem., 225 Article 113767.