Recombinant WNV NS3 protease and NS2b Fusion Protein, His tagged

Cat. No. NS3 Protease-19W **Lot. No.** (See product label)

SPECIFICATION

Product Overview	His-tagged recombinant WNV NS3 protease (residues 1 to 184) was expressed as a fusion protein with the cofactor NS2b (residues 49 to 96) and a linker sequence (GGGGSGGGG) in E. coli. Its activity can be measured by FRET peptides
Species	WNV
Source	E.coli
ProteinLength	NS3 protease: 1-184aa; NS2b: 49-96
Description	West Nile virus (WNV) is a member of the flavivirus genus, which contains many significant human pathogens including Dengue virus (Den), Japanese Encephalitits virus (JE), and Yellow Fever virus (YF). WNV is a small, enveloped virus with a single stranded, positive sense 11kb RNA genome, which encodes a polyprotein precursor. This polyprotein must be cleaved co- and post-translationally to produce ten functional proteins: three structural (C, prM and E) and 7 nonstructural (NS1, NS2A, NS2B, NS3, NS4A,NS4B and NS5). WNV NS3 protease is absolutely essential (along with viral-encoded cofactor NS2B) for post-translational cleavage and viral replication. As a result, this protease is a potential therapeutic target.
Tag	His
Form	Solution

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Molecular Mass	32 kDa
Purity	≥95% by SDS-PAGE
Applications	FRET; Protease activity
Usage	Research use
Unit Definition	One unit of protease hydrolyzes 1 picomole of Pyr-RTKR-AMC substrate from West Nile Virus Protease Assay Kits per minute at pH 8.0 at 30 centigrade.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	100 μg/ml
Storage Buffer	25 mM Tris-HCl, pH 7.5, 150 mM NaCl
References	1. Brinton, MA. Annu Rev Microbiol. 56, 371 (2002) 2. Tyndall, JD. et al. Chem. Rev. 105, 973 (2005). 3. Loughlin, WA. et al. Chem. Rev. 104, 6085 (2004) 4. D'Arcy, A.et al. Acta Cryst. F62, 157 (2006).

GENE INFORMATION

Official Symbol	NS3 protease; NS2b
Synonyms	NS3 protease; NS2b; Genome polyprotein; GP1; WNV NS3 protease; WNV NS2b; West Nile Virus; WNV
UniProt ID	Q9Q6P4

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