

## NS1 Protein, Dengue virus 2 (HEK293, His)

Cat. No.:	HY-P73740
Synonyms:	DEN-2; Dengue NS1 protein; Dengue virus Type 2; DENV2; DENV2-NS1
Species:	Virus
Source:	HEK293
Accession:	AAC59275 (D776-A1127)
Gene ID:	/
Molecular Weight:	Approximately 42.3 kDa

### PROPERTIES

Appearance	Solution
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

### DESCRIPTION

Background	<p>Non-structural protein 5 (NS5) is part of the flavivirus RNA replication complex (RC) composed of viral non-structural proteins and host-cell cofactors. NS5 is the largest flavivirus protein, the most conserved, which act as two domains, the RNA-dependent RNA polymerase (RdRp) and RNA methyltransferase enzyme (MTase). The DENV-NS5 RdRp domain contributes to the viral replication stages, whereas the MTase initiates viral RNA capping and facilitates polyprotein translation. NS5 plays a fundamental role in viral RNA methylation, RNA polymerization, and host immune system evasion. It functions as a scaffold protein with different binding sites for the host STAT2 and ERC1 proteins, but sharing a requirement for UBR4. NS5 also interacts with hostcell proteins as hSTAT2 and contributes to the evasion of the type I interferon (IFN)-mediated innate immune response, which is the first step of host-cell defense against viral infections. NS5 is a potent antagonist of type I IFN signaling of the DENV proteins by suppressing the human JAK-STAT signaling<sup>[1][2][3]</sup>.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA