

Product Information Sheet for NR-3741

Peptide Array, Hepatitis C Virus, J4, NS2 Protein

Catalog No. NR-3741

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Contributor:

BEI Resources

Manufacturer:

Bio-Synthesis, Inc.

Product Description:

The 32-peptide array spans the NS2 protein of hepatitis C virus, J4 (genotype 1b; GenPept: AAC15722).¹ Peptides are 12- to 18-mers, with 11 amino acid overlaps. Please see Table 1 for length and sequence of individual peptides.

Material Provided:

Peptides are provided lyophilized at 1 mg per vial.

Packaging/Storage:

Lyophilized peptides should be placed in a closed dry environment with dessicants and stored at -20°C or colder immediately upon arrival. A frost-free freezer should be avoided, since changes in moisture and temperature may affect peptide stability.

Solubility:

Solubility may vary based on the amino acid content of the individual peptide (see Table 2).

Reconstitution:

Lyophilized peptides should be warmed to room temperature for 1 hour prior to reconstitution. They should be dissolved at the highest possible concentration, and then diluted with water or buffer to the working concentration. Buffer should be added only after the peptide is completely in solution because salts may cause aggregation.

The most common dissolution process is 1 mg of peptide in 1 mL of sterile, distilled water. Peptides that are not soluble in water can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution. For cell-based assays, 0.5% DMSO in medium is usually well-tolerated.

Sonication and/or the addition of small amounts of dilute (10%) aqueous acetic acid for basic peptides, aqueous ammonia for acidic peptides or acetonitrile may also help dissolution (see Table 2). These solvents may not be

appropriate for certain applications, including cell-based assays.

Storage of Reconstituted Peptides:

The shelf life of peptides in solution is very limited, especially for sequences containing cysteine, methionine, tryptophan, asparagine, glutamine, and N-terminal glutamic acid. In general, peptides may be aliquoted and stored in solution for a few days at -20°C or colder. For long-term storage, peptides should be re-lyophilized and stored at -20°C or colder. If long-term storage in solution is unavoidable, peptide solutions should be buffered to pH 5-6, aliquoted and stored at -20°C or colder. Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Peptide Array, Hepatitis C Virus, J4, NS2 Protein, NR-3741."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm.

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References:

1. Yanagi, M., et al. "Transcripts of a Chimeric cDNA Clone of Hepatitis C Virus Genotype 1b Are Infectious *in Vivo*." *Virology* 244 (1998): 161-172. PubMed: 9581788. GenPept: AAC15722.

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Table 1		
Peptide	Length	Sequence
1 of 32	18	1 LDREMAASCGGAVLVGLV 18
2 of 32	18	8 SCGGAVLVGLVFLTLSPY 25
3 of 32	18	15 VGLVFLTLSPYYKVFLTR 32
4 of 32	18	22 LSPYYKVFLTRLIWWLQY 39
5 of 32	18	29 FLTRLIWWLQYFITRAEA 46
6 of 32	17	36 WLQYFITRAEAHMQVWV 52
7 of 32	17	42 TRAEAHMQVWVPPLNVR 58
8 of 32	18	48 MQVWVPPLNVRGGRDAI 65
9 of 32	18	55 LNVGRGGRDAIILLTCAVH 72
10 of 32	18	62 DAIILLTCAVHPELIFDI 79
11 of 32	18	69 CAVHPELIFDITKLLAI 86
12 of 32	18	76 IFDITKLLAILGPLMVL 93
13 of 32	18	83 LLAILGPLMVLQAGITRV 100
14 of 32	17	90 LMVLQAGITRVYPYFVRA 106
15 of 32	17	96 GITRVYPYFVRAQGLIRA 112
16 of 32	18	102 YFVRAQGLIRACMLVRKV 119
17 of 32	17	109 LIRACMLVRKVAGGHYV 125
18 of 32	18	115 LVRKVAGGHYVQMVMFKL 132
19 of 32	18	122 GHYVQMVMFKLGALTGTY 139
20 of 32	16	129 FMKLGALTGTYYNHL 144
21 of 32	18	134 ALTGTYYNHLTPLRDWA 151
22 of 32	18	141 YNHLTPLRDWAHAGLRDL 158
23 of 32	18	148 RDWAHAGLRDLAVAVEPV 165
24 of 32	16	155 LRDLAVAVEPVVFSAM 170
25 of 32	18	160 VAVEPVVFSAMETKVITW 177
26 of 32	17	167 FSAMETKVITWGADTAA 183
27 of 32	17	173 KVITWGADTAACGDIIL 189
28 of 32	18	179 ADTAACGDIILGLPVSAR 196
29 of 32	18	186 DIILGLPVSARRGKEIFL 203

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Table 1		
Peptide	Length	Sequence
30 of 32	17	193 VSARRGKEIFLGPADSL 209
31 of 32	18	199 KEIFLGPADSLEGQGWRL 216
32 of 32	12	206 ADSLEGQGWRL 217

Table 2		
Peptide	Solubility	Solvent
1 of 32	1 mg/mL	100% DMSO
2 of 32	1 mg/mL	100% DMSO
3 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
4 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
5 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
6 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
7 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
8 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
9 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
10 of 32	1 mg/mL	100% DMSO
11 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
12 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
13 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
14 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
15 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
16 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
17 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
18 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
19 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
20 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
21 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
22 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
23 of 32	1 mg/mL	0.05% trifluoroacetic acid in water
24 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
25 of 32	1 mg/mL	100% DMSO
26 of 32	1 mg/mL	100% DMSO
27 of 32	1 mg/mL	100% DMSO
28 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
29 of 32	1 mg/mL	70% acetonitrile and 0.05% trifluoroacetic acid in water
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