

Product Information Sheet for NR-3756

Peptide Array, Hepatitis C Virus, H77, NS5B Protein

Catalog No. NR-3756

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Contributor:

BEI Resources

Manufacturer:

Bio-Synthesis, Inc.

Product Description:

The 91-peptide array spans the NS5B protein of hepatitis C virus, H77 (genotype 1a; GenPept: AAB67036).¹ Peptides are 14- to 19-mers, with 11 or 12 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, H77, NS5B Protein, NR-3756."

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 from a Single Full-length cDNA Clone of Hepatitis C Virus Are Infectious When Directly Transfected into the Liver of a Chimpanzee." *Proc. Natl. Acad. Sci. U. S. A.* 94 (1997): 8738-8743. PubMed: 9238047. GenPept: AAB67036.

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Table 1		
Peptide	Length	Sequence
1 of 91	16	1 SMSYSWTGALVTPCAA 16
2 of 91	18	6 WTGALVTPCAEEQKLPI 23
3 of 91	18	13 PCAAEEQKLPIALSNSL 30
4 of 91	18	20 KLPINALSNSLLRHHNLV 37
5 of 91	17	27 SNSLLRHHNLVYSTTSR 43
6 of 91	18	33 HHNLVYSTTSRSACQRQK 50
7 of 91	18	40 TTSRSACQRQKKVTFDRL 57
8 of 91	18	46 CQRQKKVTFDRLQVLDSH 63
9 of 91	17	53 TFDRLQVLDSHYQDVLK 69
10 of 91	17	59 VLDSHYQDVLKEVKAAA 75
11 of 91	17	64 YQDVLKEVKAAASKVKA 80
12 of 91	16	70 EVKAAASKVKANLLSV 85
13 of 91	17	75 ASKVKANLLSVEEACSL 91
14 of 91	18	81 NLLSVEEACSLTPPHSAK 98
15 of 91	18	88 ACSLTPPHSAKSKFGYGA 105
16 of 91	18	95 HSAKSKFGYGAKDVRCHA 112
17 of 91	18	102 GYGAKDVRCHARKAVAH 119
18 of 91	18	109 RCHARKAVAHINSVWKDL 126
19 of 91	16	116 VAHINSVWKDLLEDSV 131
20 of 91	18	121 SVWKDLLEDSVTPIDTTI 138
21 of 91	18	128 EDSVTPIDTTIMAKNEVF 145
22 of 91	17	135 DTTIMAKNEVFCVQPEK 151
23 of 91	18	141 KNEVFCVQPEKGGRKPAR 158
24 of 91	16	147 VQPEKGGRKPARLIVF 162
25 of 91	18	152 GGRKPARLIVFDLGVRV 169
26 of 91	18	159 LIVFDLGVRVCEKMALY 176
27 of 91	17	166 GVRVCEKMALYDVVSKL 182
28 of 91	16	172 KMALYDVVSKLPLAVM 187

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Table 1		
Peptide	Length	Sequence
29 of 91	17	177 DVVSKLPLAVMGSSYGF 193
30 of 91	18	183 PLAVMGSSYGFQYSPGQR 200
31 of 91	18	190 SYGFQYSPGQRVEFLVQA 207
32 of 91	16	197 PGQRVEFLVQAWKSKK 212
33 of 91	18	202 EFLVQAWKSKKTPMGFSY 219
34 of 91	16	209 KSKKTPMGFSYDTRCF 224
35 of 91	15	214 PMGFSYDTRCFDSTV 228
36 of 91	17	218 SYDTRCFDSTVTESDIR 234
37 of 91	17	224 FDSTVTESDIRTEEAIY 240
38 of 91	16	230 ESDIRTEEAIYQCCDL 245
39 of 91	18	235 TEEAIYQCCDLDPQARVA 252
40 of 91	18	242 CCDLDPQARVAIKSLTER 259
41 of 91	18	249 ARVAIKSLTERLYVGGPL 266
42 of 91	15	256 LTERLYVGGPLTNSR 270
43 of 91	18	260 LYVGGPLTNSRGENCYR 277
44 of 91	18	267 TNSRGENCYRRCRASGV 284
45 of 91	18	274 CGYRRCRASGVLTTCGN 291
46 of 91	18	281 ASGVLTTCGNTLTCTYIK 298
47 of 91	18	288 SCGNTLTCTYIKARAACRA 305
48 of 91	19	295 CYIKARAACRAAGLQDCTM 313
49 of 91	18	303 CRAAGLQDCTMLVCGDDL 320
50 of 91	18	310 DCTMLVCGDDLVVICESA 327
51 of 91	18	317 GDDLVVICESAGVQEDAA 334
52 of 91	16	324 CESAGVQEDAASLRAF 339
53 of 91	18	329 VQEDAASLRAFTEAMTRY 346
54 of 91	18	336 LRAFTEAMTRYSAAPPGBP 353
55 of 91	18	343 MTRYSAAPPGDPPQPEYDL 360
56 of 91	18	350 PGDPPQPEYDLELITSCS 367
57 of 91	18	357 EYDLELITSCSSNVSAH 374
58 of 91	18	364 TSCSSNVSAHDGAGKRV 381
59 of 91	16	371 SVAHDGAGKRVYYLTR 386
60 of 91	18	376 GAGKRVYYLTRDPTTPLA 393
61 of 91	18	383 YLTRDPTTPLARAAWETA 400
62 of 91	16	390 TPLARAAWETARHTPV 405
63 of 91	18	395 AAWETARHTPVNSWLGN 412
64 of 91	18	402 HTPVNSWLGNIMFAPTL 419
65 of 91	18	409 LGNIMFAPTLWARMILM 426
66 of 91	18	416 APTLWARMILMTHFFSVL 433
67 of 91	17	423 MILMTHFFSVLIARDQL 439
68 of 91	15	429 FFSVLIARDQLEQAL 443
69 of 91	18	433 LIARDQLEQALNCEIYGA 450

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Table 1		
Peptide	Length	Sequence
70 of 91	18	440 EQALNCEIYGACYSIEPL 457
71 of 91	17	447 IYGACYSIEPLDLPPII 463
72 of 91	17	453 SIEPLDLPPIIQRLHGL 469
73 of 91	17	459 LPPIIQLHGLSAFSLH 475
74 of 91	18	465 RLHGLSAFSLHSYSPGEI 482
75 of 91	18	472 FSLHSYSPGEINRVAACL 489
76 of 91	16	479 PGEINRVAACLRKLG 494
77 of 91	18	484 RVAACLRKLGVPPLRAW 501
78 of 91	18	491 KLGVPPLRAWHRARSVR 508
79 of 91	17	498 RAWHRARSVRARLLSR 514
80 of 91	17	504 ARSVRARLLSRGGRAAI 520
81 of 91	17	510 RLLSRGGRAAICGKYL 526
82 of 91	18	516 GRAAICGKYLFWAVRTK 533
83 of 91	18	523 KYLFWAVRTKLKLTPIA 540
84 of 91	18	530 VRTKLKLTPIAAAGRLD 547
85 of 91	17	537 TPIAAAGRLDLGWFTA 553
86 of 91	18	543 GRDLGWFTAGYSGGDI 560
87 of 91	18	550 WFTAGYSGGDIYHSVSHA 567
88 of 91	18	557 GGDIYHSVSHARPRWFW 574
89 of 91	18	564 VSHARPRWFWFCLLLAA 581
90 of 91	18	571 WFWFCLLLAAGVGIYLL 588
91 of 91	14	578 LLAAGVGIYLLPNR 591

Table 2		
Peptide	Solubility	Solvent
1 of 91	1 mg/mL	50% acetic acid in water
2 of 91	1 mg/mL	50% acetic acid in water
3 of 91	1 mg/mL	50% acetic acid in water
4 of 91	1 mg/mL	50% acetic acid in water
5 of 91	1 mg/mL	50% acetic acid in water
6 of 91	1 mg/mL	50% acetic acid in water
7 of 91	1 mg/mL	50% acetic acid in water
8 of 91	1 mg/mL	50% acetic acid in water
9 of 91	1 mg/mL	50% acetic acid in water
10 of 91	1 mg/mL	50% acetic acid in water
11 of 91	1 mg/mL	50% acetic acid in water
12 of 91	1 mg/mL	50% acetic acid in water

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Table 2

Peptide	Solubility	Solvent
13 of 91	1 mg/mL	50% acetic acid in water
14 of 91	1 mg/mL	50% acetic acid in water
15 of 91	1 mg/mL	100% DMSO
16 of 91	1 mg/mL	50% acetic acid in water
17 of 91	1 mg/mL	50% acetic acid in water
18 of 91	1 mg/mL	50% acetic acid in water
19 of 91	1 mg/mL	50% acetic acid in water
20 of 91	1 mg/mL	50% acetic acid in water
21 of 91	1 mg/mL	50% acetic acid in water
22 of 91	1 mg/mL	50% acetic acid in water
23 of 91	1 mg/mL	50% acetic acid in water
24 of 91	1 mg/mL	50% acetic acid in water
25 of 91	1 mg/mL	50% acetic acid in water
26 of 91	1 mg/mL	50% acetic acid in water
27 of 91	1 mg/mL	50% acetic acid in water
28 of 91	1 mg/mL	50% acetic acid in water
29 of 91	1 mg/mL	50% acetic acid in water
30 of 91	1 mg/mL	50% acetic acid in water
31 of 91	1 mg/mL	50% acetic acid in water
32 of 91	1 mg/mL	50% acetic acid in water
33 of 91	1 mg/mL	50% acetic acid in water
34 of 91	1 mg/mL	50% acetic acid in water
35 of 91	1 mg/mL	50% acetic acid in water
36 of 91	1 mg/mL	50% acetic acid in water
37 of 91	1 mg/mL	50% acetic acid in water
38 of 91	1 mg/mL	50% acetic acid in water
39 of 91	1 mg/mL	50% acetic acid in water
40 of 91	1 mg/mL	50% acetic acid in water
41 of 91	1 mg/mL	50% acetic acid in water
42 of 91	1 mg/mL	50% acetic acid in water
43 of 91	1 mg/mL	50% acetic acid in water
44 of 91	1 mg/mL	50% acetic acid in water
45 of 91	1 mg/mL	50% acetic acid in water
46 of 91	1 mg/mL	50% acetic acid in water
47 of 91	1 mg/mL	50% acetic acid in water
48 of 91	1 mg/mL	50% acetic acid in water
49 of 91	1 mg/mL	50% acetic acid in water
50 of 91	1 mg/mL	100% DMSO
51 of 91	1 mg/mL	100% DMSO

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Table 2

Peptide	Solubility	Solvent
52 of 91	1 mg/mL	70% acetonitrile in water
53 of 91	1 mg/mL	50% acetic acid in water
54 of 91	1 mg/mL	50% acetic acid in water
55 of 91	1 mg/mL	50% acetic acid in water
56 of 91	1 mg/mL	50% acetic acid in water
57 of 91	1 mg/mL	100% DMSO
58 of 91	1 mg/mL	50% acetic acid in water
59 of 91	1 mg/mL	50% acetic acid in water
60 of 91	1 mg/mL	50% acetic acid in water
61 of 91	1 mg/mL	50% acetic acid in water
62 of 91	1 mg/mL	50% acetic acid in water
63 of 91	1 mg/mL	50% acetic acid in water
64 of 91	1 mg/mL	50% acetic acid in water
65 of 91	1 mg/mL	50% acetic acid in water
66 of 91	1 mg/mL	50% acetic acid in water
67 of 91	1 mg/mL	50% acetic acid in water
68 of 91	1 mg/mL	50% acetic acid in water
69 of 91	1 mg/mL	100% DMSO
70 of 91	1 mg/mL	100% DMSO
71 of 91	1 mg/mL	50% acetic acid in water
72 of 91	1 mg/mL	50% acetic acid in water
73 of 91	1 mg/mL	50% acetic acid in water
74 of 91	1 mg/mL	50% acetic acid in water
75 of 91	1 mg/mL	50% acetic acid in water
76 of 91	1 mg/mL	50% acetic acid in water
77 of 91	1 mg/mL	50% acetic acid in water
78 of 91	1 mg/mL	50% acetic acid in water
79 of 91	1 mg/mL	50% acetic acid in water
80 of 91	1 mg/mL	50% acetic acid in water
81 of 91	1 mg/mL	50% acetic acid in water
82 of 91	1 mg/mL	50% acetic acid in water
83 of 91	1 mg/mL	50% acetic acid in water
84 of 91	1 mg/mL	50% acetic acid in water
85 of 91	1 mg/mL	50% acetic acid in water
86 of 91	1 mg/mL	50% acetic acid in water
87 of 91	1 mg/mL	50% acetic acid in water
88 of 91	1 mg/mL	50% acetic acid in water
89 of 91	1 mg/mL	50% acetic acid in water
90 of 91	1 mg/mL	100% DMSO
91 of 91	1 mg/mL	50% acetic acid in water