

## Peptide Array, Hepatitis C Virus, J4, NS5B Protein

### Catalog No. NR-3746

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#### Contributor:

BEI Resources

#### Manufacturer:

Bio-Synthesis, Inc.

#### Product Description:

The 90-peptide array spans the NS5B protein of hepatitis C virus, J4 (genotype 1b; GenPept: AAC15722).<sup>1</sup> Peptides are 14- to 19-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 desiccants 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, NS5B Protein, NR-3746."

#### 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/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.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 90	16	1 SMSYTWGTGALITPCAA 16
2 of 90	18	6 WTGALITPCAAEESKLPI 23
3 of 90	18	13 PCAAEESKLPINPLSNL 30
4 of 90	18	20 KLPINPLSNLLRHHNMV 37
5 of 90	17	27 SNSLLRHHNMVYATTSR 43
6 of 90	18	33 HHNMVYATTSRSASLRQK 50
7 of 90	18	40 TTSRSASLRQKKVTFDRL 57
8 of 90	18	47 LRQKKVTFDRLQVLDDHY 64
9 of 90	18	54 FDRLQVLDDHYRDVLKEM 71
10 of 90	18	61 DDHYRDVLKEMKAKASTV 78
11 of 90	18	68 LKEMKAKASTVKAKLLSI 85
12 of 90	17	75 ASTVKAKLLSIEEACKL 91
13 of 90	18	81 KLLSIEEACKLTPPHSAK 98
14 of 90	18	88 ACKLTPPHSAKSKFGYGA 105
15 of 90	17	95 HSAKSKFGYGAKDVRNL 111
16 of 90	18	101 FGYGAKDVRNLSSRAVNH 118
17 of 90	16	108 VRNLSSRAVNHRSVW 123
18 of 90	15	113 SRAVNHRSVWEDLL 127
19 of 90	18	117 NHRVWEDLLEDTETPI 134
20 of 90	18	124 EDLLEDTETPIDTTIMAK 141
21 of 90	17	131 ETPIDTTIMAKSEVFCV 147
22 of 90	18	137 TIMAKSEVFCVQPEKGGR 154
23 of 90	18	144 VFCVQPEKGGRKPARLIV 161
24 of 90	18	151 KGGRKPARLIVFPDLGVR 168
25 of 90	18	158 RLIVFPDLGVRVCEKMAL 175
26 of 90	18	165 LGVRVCEKMALYDVVSTL 182
27 of 90	16	172 KMALYDVVSTLPQAVM 187
28 of 90	17	177 DVVSTLPQAVMGSSYGF 193

Table 1		
Peptide	Length	Sequence
29 of 90	18	183 PQAVMGSSYGFQYSPKQR 200
30 of 90	16	190 SYGFQYSPKQRVEFLV 205
31 of 90	18	195 YSPKQRVEFLVNTWKSCK 212
32 of 90	18	202 EFLVNTWKSCKCPMGFSY 219
33 of 90	16	209 KSKKCPMGFSYDTRCF 224
34 of 90	15	214 PMGFSYDTRCFDSTV 228
35 of 90	18	218 SYDTRCFDSTVTESDIRV 235
36 of 90	16	225 DSTVTESDIRVEESY 240
37 of 90	17	230 ESDIRVEESYQCCDLA 246
38 of 90	18	236 EESYQCCDLAPEARQAI 253
39 of 90	18	243 CDLAPPEARQAIRSLTERL 260
40 of 90	17	250 RQAIRSLTERLYIGGPL 266
41 of 90	15	256 LTERLYIGGPLTNSK 270
42 of 90	18	260 LYIGGPLTNSKGQNCGYR 277
43 of 90	18	267 TNSKGQNCGYRRCRASGV 284
44 of 90	18	274 CGYRRCRASGVLTSCGN 291
45 of 90	18	281 ASGVLTSCGNLTTCYLK 298
46 of 90	18	288 SCGNLTTCYLKATAACRA 305
47 of 90	19	295 CYLKATAACRAAKLQDCTM 313
48 of 90	18	303 CRAAKLQDCTMLVNGDDL 320
49 of 90	18	310 DCTMLVNGDDLVVICESA 327
50 of 90	18	317 GDDLVVICESAGTQEDAA 334
51 of 90	16	324 CESAGTQEDAAALRAF 339
52 of 90	18	329 TQEDAAALRAFTEAMTRY 346
53 of 90	18	336 LRAFTEAMTRYSAPPGDP 353
54 of 90	18	343 MTRYSAPPGDPPQPEYDL 360
55 of 90	18	350 PGDPPQPEYDLELITSCS 367
56 of 90	18	357 EYDLELITSCSSNVSAH 374
57 of 90	18	364 TSCSSNVSAHDASGKRV 381
58 of 90	16	371 SVAHDASGKRYYLTR 386
59 of 90	18	376 ASGKRYYLTRDPTTPLA 393
60 of 90	18	383 YLTRDPTTPLARAAWETA 400
61 of 90	16	390 TPLARAAWETARHTPI 405
62 of 90	18	395 AAWETARHTPINSWLGNI 412
63 of 90	18	402 HTPINSWLGNIIMYAPTL 419
64 of 90	18	409 LGNIIMYAPTLWARMILM 426
65 of 90	18	416 APTLWARMILMTHFFSIL 433
66 of 90	17	423 MILMTHFFSILLAQEQL 439
67 of 90	15	429 FFSILLAQEQLKAL 443
68 of 90	18	433 LLAQEQLKALDCQIYGA 450
69 of 90	18	440 EKALDCQIYGACYSIEPL 457
70 of 90	17	447 IYGACYSIEPLDLPQII 463

Peptide	Length	Sequence
71 of 90	17	453 SIEPLDLPQIIERLHGL 469
72 of 90	17	459 LPQIIERLHGLSAFTLH 475
73 of 90	18	465 RLHGLSAFTLHSPGEI 482
74 of 90	18	472 FTLHSPGEINRVASCL 489
75 of 90	16	479 PGEINRVASCLRKLG 494
76 of 90	18	484 RVASCLRKLGVPPLRTWR 501
77 of 90	18	491 KLGVPPLRTWRHRARSVR 508
78 of 90	15	498 RTWRHRARSVRAKLL 512
79 of 90	18	502 HRARSVRAKLLSQGGRAA 519
80 of 90	18	509 AKLLSQGGRAATCGRYLF 526
81 of 90	18	516 GRAATCGRYLFNWAVRTK 533
82 of 90	17	523 RYLFNWAVRTKLTPI 539
83 of 90	17	529 AVRTKLTPIPAASQL 545
84 of 90	18	535 KLTPIPAASQLDLGWV 552
85 of 90	19	542 ASQLDLGWVAGYSGGDI 560
86 of 90	18	550 WFVAGYSGGDIYHLSRA 567
87 of 90	18	557 GGDIYHLSRARPRWFPL 574
88 of 90	18	564 LSRARPRWFPLCLLLSV 581
89 of 90	18	571 WFPLCLLLSVGVGIYLL 588
90 of 90	14	578 LLSVGVGIYLLPNR 591

Peptide	Solubility	Solvent
1 of 90	1 mg/mL	50% acetic acid in water
2 of 90	1 mg/mL	50% acetic acid in water
3 of 90	1 mg/mL	50% acetic acid in water
4 of 90	1 mg/mL	50% acetic acid in water
5 of 90	1 mg/mL	50% acetic acid in water
6 of 90	1 mg/mL	50% acetic acid in water
7 of 90	1 mg/mL	50% acetic acid in water
8 of 90	1 mg/mL	50% acetic acid in water
9 of 90	1 mg/mL	50% acetic acid in water
10 of 90	1 mg/mL	50% acetic acid in water
11 of 90	1 mg/mL	50% acetic acid in water
12 of 90	1 mg/mL	50% acetic acid in water
13 of 90	1 mg/mL	50% acetic acid in water
14 of 90	1 mg/mL	50% acetic acid in water
15 of 90	1 mg/mL	50% acetic acid in water

Table 2		
Peptide	Solubility	Solvent
16 of 90	1 mg/mL	50% acetic acid in water
17 of 90	1 mg/mL	50% acetic acid in water
18 of 90	1 mg/mL	50% acetic acid in water
19 of 90	1 mg/mL	50% acetic acid in water
20 of 90	1 mg/mL	70% acetonitrile in water
21 of 90	1 mg/mL	50% acetic acid in water
22 of 90	1 mg/mL	50% acetic acid in water
23 of 90	1 mg/mL	50% acetic acid in water
24 of 90	1 mg/mL	50% acetic acid in water
25 of 90	1 mg/mL	70% acetonitrile in water
26 of 90	1 mg/mL	50% acetic acid in water
27 of 90	1 mg/mL	50% acetic acid in water
28 of 90	1 mg/mL	50% acetic acid in water
29 of 90	1 mg/mL	50% acetic acid in water
30 of 90	1 mg/mL	50% acetic acid in water
31 of 90	1 mg/mL	50% acetic acid in water
32 of 90	1 mg/mL	50% acetic acid in water
33 of 90	1 mg/mL	50% acetic acid in water
34 of 90	1 mg/mL	50% acetic acid in water
35 of 90	1 mg/mL	50% acetic acid in water
36 of 90	1 mg/mL	50% acetic acid in water
37 of 90	1 mg/mL	50% acetic acid in water
38 of 90	1 mg/mL	70% acetonitrile in water
39 of 90	1 mg/mL	50% acetic acid in water
40 of 90	1 mg/mL	70% acetonitrile in water
41 of 90	1 mg/mL	50% acetic acid in water
42 of 90	1 mg/mL	50% acetic acid in water
43 of 90	1 mg/mL	50% acetic acid in water
44 of 90	1 mg/mL	70% acetonitrile in water
45 of 90	1 mg/mL	50% acetic acid in water
46 of 90	1 mg/mL	50% acetic acid in water
47 of 90	1 mg/mL	50% acetic acid in water
48 of 90	1 mg/mL	50% acetic acid in water
49 of 90	1 mg/mL	100% DMSO
50 of 90	1 mg/mL	50% acetic acid in water
51 of 90	1 mg/mL	50% acetic acid in water
52 of 90	1 mg/mL	50% acetic acid in water
53 of 90	1 mg/mL	50% acetic acid in water
54 of 90	1 mg/mL	50% acetic acid in water
55 of 90	1 mg/mL	50% acetic acid in water

Table 2		
Peptide	Solubility	Solvent
56 of 90	1 mg/mL	100% DMSO
57 of 90	1 mg/mL	100% DMSO
58 of 90	1 mg/mL	50% acetic acid in water
59 of 90	1 mg/mL	50% acetic acid in water
60 of 90	1 mg/mL	50% acetic acid in water
61 of 90	1 mg/mL	50% acetic acid in water
62 of 90	1 mg/mL	50% acetic acid in water
63 of 90	1 mg/mL	50% acetic acid in water
64 of 90	1 mg/mL	50% acetic acid in water
65 of 90	1 mg/mL	50% acetic acid in water
66 of 90	1 mg/mL	50% acetic acid in water
67 of 90	1 mg/mL	50% acetic acid in water
68 of 90	1 mg/mL	100% DMSO
69 of 90	1 mg/mL	100% DMSO
70 of 90	1 mg/mL	50% acetic acid in water
71 of 90	1 mg/mL	50% acetic acid in water
72 of 90	1 mg/mL	50% acetic acid in water
73 of 90	1 mg/mL	50% acetic acid in water
74 of 90	1 mg/mL	50% acetic acid in water
75 of 90	1 mg/mL	50% acetic acid in water
76 of 90	1 mg/mL	50% acetic acid in water
77 of 90	1 mg/mL	50% acetic acid in water
78 of 90	1 mg/mL	50% acetic acid in water
79 of 90	1 mg/mL	50% acetic acid in water
80 of 90	1 mg/mL	50% acetic acid in water
81 of 90	1 mg/mL	50% acetic acid in water
82 of 90	1 mg/mL	50% acetic acid in water
83 of 90	1 mg/mL	50% acetic acid in water
84 of 90	1 mg/mL	50% acetic acid in water
85 of 90	1 mg/mL	100% DMSO
86 of 90	1 mg/mL	50% acetic acid in water
87 of 90	1 mg/mL	50% acetic acid in water
88 of 90	1 mg/mL	50% acetic acid in water
89 of 90	1 mg/mL	30% formic acid in water
90 of 90	1 mg/mL	50% acetic acid in water