Peptide Array, Hepatitis C Virus, H77, NS3 Protein

Catalog No. NR-3752

This reagent is the tangible property of the U.S. Government.

For research use only. Not for human use.

Contributor:
BEI Resources

Manufacturer:
Bio-Synthesis, Inc.

Product Description:
The 98-peptide array spans the NS3 protein of hepatitis C virus, H77 (genotype 1a; GenPept: AAB67036).[1] Peptides are 15- 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, NS3 Protein, NR-3752."

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.

Disclaimers:
You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government make any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale. This material may be subject to third party patent rights.

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.

Support Provided by NIAID

Table 1

Peptide	Length	Sequence
1 of 98	18	1 APITAYAQQTRGLLGCII 18
2 of 98	18	7 AQQTRGLLGCIITSLTGR 24
3 of 98	16	14 LGCIITSLTGRDKNQV 29
4 of 98	18	19 TSLTGRDKNQVEGEVQIV 36
5 of 98	18	26 KNQVEGEVQIVSTATQTF 43
6 of 98	16	33 VQIVSTATQTFLATCI 48
7 of 98	18	38 TATQTFLATCINGVCWTV 55
8 of 98	18	45 ATCINGVCWTVYHGAGTR 62
9 of 98	17	52 CWTVYHGAGTRTIASPK 68
10 of 98	18	58 GAGTRTIASPKGPVIQMY 75
11 of 98	18	65 ASPKGPVIQMYTNVDQDL 82
12 of 98	16	72 IQMYTNVDQDLVGWPA 87
13 of 98	18	77 NVDQDLVGWPAPQGSRSL 94
14 of 98	18	84 GWPAPQGSRSLTPCTCGS 101
15 of 98	17	91 SRSLTPCTCGSSDLYLV 107
16 of 98	18	97 CTCGSSDLYLVTRHADVI 114
17 of 98	16	104 LYLVTRHADVIPVRRR 119
18 of 98	18	109 RHADVIPVRRRGDSRGSL 126
19 of 98	17	116 VRRRGDSRGSLLSPRPI 132
20 of 98	15	122 SRGSLLSPRPISYLK 136
21 of 98	18	126 LLSPRPISYLKGSSGGPL 143
22 of 98	18	133 SYLKGSSGGPLLCPAGHA 150
23 of 98	18	140 GGPLLCPAGHAVGLFRAA 157
24 of 98	18	147 AGHAVGLFRAAVCTRGVA 164
25 of 98	17	154 FRAAVCTRGVAKAVDFI 170
26 of 98	16	160 TRGVAKAVDFIPVENL 175
27 of 98	16	165 KAVDFIPVENLGTTMR 180
28 of 98	15	170 IPVENLGTTMRSPVF 184
29 of 98	19	174 NLGTTMRSPVFTDNSSPPA 192
30 of 98	18	182 PVFTDNSSPPAVPQSFQV 199
31 of 98	16	189 SPPAVPQSFQVAHLHA 204
32 of 98	17	194 PQSFQVAHLHAPTGSGK 210

Table 1		
Peptide	**Length**	**Sequence**
33 of 98	18	200 AHLHAPTGSGKSTKVPAA 217
34 of 98	18	207 GSGKSTKVPAAYAAQGYK 224
35 of 98	15	214 VPAAYAAQGYKVLVL 228
36 of 98	17	218 YAAQGYKVLVLNPSVAA 234
37 of 98	18	224 KVLVLNPSVAATLGFGAY 241
38 of 98	18	231 SVAATLGFGAYMSKAHGV 248
39 of 98	16	238 FGAYMSKAHGVDPNIR 253
40 of 98	17	243 SKAHGVDPNIRTGVRTI 259
41 of 98	17	249 DPNIRTGVRTITTGSPI 265
42 of 98	18	255 GVRTITTGSPITYSTYGK 272
43 of 98	18	262 GSPITYSTYGKFLADGGC 279
44 of 98	18	269 TYGKFLADGGCSGGAYDI 286
45 of 98	18	276 DGGCSGGAYDIIICDECH 293
46 of 98	18	283 AYDIIICDECHSTDATSI 300
47 of 98	18	290 DECHSTDATSILGIGTVL 307
48 of 98	17	297 ATSILGIGTVLDQAETA 313
49 of 98	18	303 IGTVLDQAETAGARLVVL 320
50 of 98	18	310 AETAGARLVVLATATPPG 327
51 of 98	17	317 LVVLATATPPGSVTVSH 333
52 of 98	18	323 ATPPGSVTVSHPNIEEVA 340
53 of 98	18	330 TVSHPNIEEVALSTTGEI 347
54 of 98	18	337 EEVALSTTGEIPFYGKAI 354
55 of 98	17	344 TGEIPFYGKAIPLEVIK 360
56 of 98	18	350 YGKAIPLEVIKGGRHLIF 367
57 of 98	17	357 EVIKGGRHLIFCHSKKK 373
58 of 98	18	363 RHLIFCHSKKKCDELAAK 380
59 of 98	17	370 SKKKCDELAAKLVALGI 386
60 of 98	18	376 ELAAKLVALGINAVAYYR 393
61 of 98	18	383 ALGINAVAYYRGLDVSVI 400
62 of 98	18	390 AYYRGLDVSVIPTSGDVV 407
63 of 98	18	397 VSVIPTSGDVVVVSTDAL 414
64 of 98	15	404 GDVVVVSTDALMTGF 418
65 of 98	18	408 VVSTDALMTGFTGDFDSV 425
66 of 98	18	415 MTGFTGDFDSVIDCNTCV 432
67 of 98	17	422 FDSVIDCNTCVTQTVDF 438
68 of 98	17	428 CNTCVTQTVDFSLDPTF 444
69 of 98	19	433 TQTVDFSLDPTFTIETTTL 451
70 of 98	18	441 DPTFTIETTTLPQDAVSR 458
71 of 98	17	448 TTTLPQDAVSRTQRRGR 464
72 of 98	16	454 DAVSRTQRRGRTGRGK 469
73 of 98	18	459 TQRRGRTGRGKPGIYRFV 476
74 of 98	16	466 GRGKPGIYRFVAPGER 481

Table 1		
Peptide	**Length**	**Sequence**
75 of 98	16	471 GIYRFVAPGERPSGMF 486
76 of 98	16	476 VAPGERPSGMFDSSVL 491
77 of 98	17	481 RPSGMFDSSVLCECYDA 497
78 of 98	18	487 DSSVLCECYDAGCAWYEL 504
79 of 98	18	494 CYDAGCAWYELTPAETTV 511
80 of 98	17	501 WYELTPAETTVRLRAYM 517
81 of 98	18	507 AETTVRLRAYMNTPGLPV 524
82 of 98	18	514 RAYMNTPGLPVCQDHLEF 531
83 of 98	16	521 GLPVCQDHLEFWEGVF 536
84 of 98	18	525 CQDHLEFWEGVFTGLTHI 542
85 of 98	16	532 WEGVFTGLTHIDAHFL 547
86 of 98	15	537 TGLTHIDAHFLSQTK 551
87 of 98	17	541 HIDAHFLSQTKQSGENF 557
88 of 98	17	547 LSQTKQSGENFPYLVAY 563
89 of 98	18	553 SGENFPYLVAYQATVCAR 570
90 of 98	19	560 LVAYQATVCARAQAPPPSW 578
91 of 98	18	568 CARAQAPPPSWDQMWKCL 585
92 of 98	18	575 PPSWDQMWKCLIRLKPTL 592
93 of 98	18	582 WKCLIRLKPTLHGPTPLL 599
94 of 98	17	589 KPTLHGPTPLLYRLGAV 605
95 of 98	17	595 PTPLLYRLGAVQNEVTL 611
96 of 98	18	601 RLGAVQNEVTLTHPITKY 618
97 of 98	18	608 EVTLTHPITKYIMTCMSA 625
98 of 98	17	615 ITKYIMTCMSADLEVVT 631

Table 2		
Peptide	**Solubility**	**Solvent**
1 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
2 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
3 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
4 of 98	1 mg/mL	70% acetonitrile in water
5 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
6 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
7 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
8 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
9 of 98	1 mg/mL	70% acetonitrile in water
10 of 98	1 mg/mL	70% acetonitrile in water

Table 2		
Peptide	**Solubility**	**Solvent**
11 of 98	1 mg/mL	70% acetonitrile in water
12 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
13 of 98	1 mg/mL	70% acetonitrile in water
14 of 98	1 mg/mL	70% acetonitrile in water
15 of 98	1 mg/mL	70% acetonitrile in water
16 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
17 of 98	1 mg/mL	70% acetonitrile in water
18 of 98	1 mg/mL	70% acetonitrile in water
19 of 98	1 mg/mL	70% acetonitrile in water
20 of 98	1 mg/mL	70% acetonitrile in water
21 of 98	1 mg/mL	70% acetonitrile in water
22 of 98	1 mg/mL	70% acetonitrile in water
23 of 98	1 mg/mL	70% acetonitrile in water
24 of 98	1 mg/mL	70% acetonitrile in water
25 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
26 of 98	1 mg/mL	70% acetonitrile in water
27 of 98	1 mg/mL	70% acetonitrile in water
28 of 98	1 mg/mL	70% acetonitrile in water
29 of 98	1 mg/mL	70% acetonitrile in water
30 of 98	1 mg/mL	70% acetonitrile in water
31 of 98	1 mg/mL	70% acetonitrile in water
32 of 98	1 mg/mL	70% acetonitrile in water
33 of 98	1 mg/mL	70% acetonitrile in water
34 of 98	1 mg/mL	70% acetonitrile in water
35 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
36 of 98	1 mg/mL	70% acetonitrile in water
37 of 98	1 mg/mL	70% acetonitrile in water
38 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
39 of 98	1 mg/mL	70% acetonitrile in water
40 of 98	1 mg/mL	70% acetonitrile in water
41 of 98	1 mg/mL	70% acetonitrile in water
42 of 98	1 mg/mL	70% acetonitrile in water
43 of 98	1 mg/mL	70% acetonitrile in water
44 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
45 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
46 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
47 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
48 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
49 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
50 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

Table 2		
Peptide	**Solubility**	**Solvent**
51 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
52 of 98	1 mg/mL	70% acetonitrile in water
53 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
54 of 98	1 mg/mL	70% acetonitrile in water
55 of 98	1 mg/mL	70% acetonitrile in water
56 of 98	1 mg/mL	70% acetonitrile in water
57 of 98	1 mg/mL	70% acetonitrile in water
58 of 98	1 mg/mL	70% acetonitrile in water
59 of 98	1 mg/mL	70% acetonitrile in water
60 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
61 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
62 of 98	1 mg/mL	70% acetonitrile in water
63 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
64 of 98	1 mg/mL	100% DMSO
65 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
66 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
67 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
68 of 98	1 mg/mL	100% DMSO
69 of 98	1 mg/mL	100% DMSO
70 of 98	1 mg/mL	70% acetonitrile in water
71 of 98	1 mg/mL	70% acetonitrile in water
72 of 98	1 mg/mL	70% acetonitrile in water
73 of 98	1 mg/mL	70% acetonitrile in water
74 of 98	1 mg/mL	70% acetonitrile in water
75 of 98	1 mg/mL	70% acetonitrile in water
76 of 98	1 mg/mL	70% acetonitrile in water
77 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
78 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
79 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
80 of 98	1 mg/mL	70% acetonitrile in water
81 of 98	1 mg/mL	70% acetonitrile in water
82 of 98	1 mg/mL	70% acetonitrile in water
83 of 98	1 mg/mL	70% acetonitrile in water
84 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
85 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
86 of 98	1 mg/mL	70% acetonitrile in water
87 of 98	1 mg/mL	70% acetonitrile in water
88 of 98	1 mg/mL	70% acetonitrile in water
89 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
90 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water

Table 2		
Peptide	**Solubility**	**Solvent**
91 of 98	1 mg/mL	70% acetonitrile in water
92 of 98	1 mg/mL	70% acetonitrile in water
93 of 98	1 mg/mL	70% acetonitrile in water
94 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
95 of 98	1 mg/mL	70% acetonitrile and 30% formic acid in water
96 of 98	1 mg/mL	70% acetonitrile in water
97 of 98	1 mg/mL	70% acetonitrile in water
98 of 98	1 mg/mL	100% DMSO

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898