

Product Data Sheet

Cat#	SP-101121-5
Description:	β-Neuroprotectin
Sequence:	D-Ala-Asp-Leu-Ile-Ala-Tyr-Leu- NH2 (MW: 776.93)
Size:	5 mg
Purity:	>95%
Store:	Desiccated at -20oC.

Neuroprotectins are oxygenated metabolites that are enzymatically derived from eicosapentaenoic acid (20:5(n-3) or EPA) and docosahexaenoic acid (22:6(n-3) or DHA). Compounds derived from EPA are designated as resolvins of the E series, while those formed from the precursor DHA are denoted as either resolvins or protectins ('neuroprotectins') of the D series. They specifically possess a conjugated triene double-bond system in their structures. Neuroprotectin is the term applied to protectin that is generated in the neural tissues. These compounds were first encountered in resolving inflammatory exudates. The resolvins and neuroprotectins are distinctive and highly stereospecific lipids, which are endogenous local mediators with strong anti-inflammatory effects in addition to some immunoregulatory activities at picomolar to nanomolar concentrations

They are part of the molecular mechanisms that contribute to removal of inflammatory cells and restoration of tissue integrity once the need for the inflammatory response is over, i.e. they actively assist in the resolution of inflammation, once thought to be a passive process. It is evident that the presence of aspirin uniquely facilitates the resolution of inflammation. Thus, at local sites of inflammation, aspirin treatment enhances the conversion of the omega-3 fatty acids EPA and DHA to resolvins of the E and D series, which carry potent anti-inflammatory signals. Studies have shown that neuroprotectins were produced in brain tissue in response to aspirin treatment.

Neuroprotectins A and B are bicyclohexapeptides. β-Neuroprotectin, aDLIAYL-amide is a peptide inhibitor of NMDA-mediated neuronal cell death. Phencyclidine (PCP) is an NMDA receptor antagonist which blocks the activity of the NMDA receptor, resulting in brain damage. β-Neuroprotectin (D)-Ala-Asp-Leu-Ile-Ala-Tyr-Leu-NH₂, inhibits PCP.

All peptides are for in vitro research use only.

Reference: Serhan CN (2007) Annu Rev Immunol 25:101-37; Serhan CN (2011) Chem. Rev.111: 5922-5943

Please consult "Frequently asked questions" section at our website for Guidance on storage and solubility of the peptides.
http://www.4adi.com/commerce/info/showpage.jsp?page_id=1088&category_id=2427

Related items:

Catalog#	ProdDescription
SP-101471-1	Neurogranin (28-43) (AA: Ala-Ala-Lys-Ile-Gln-Ala-Ser-Phe-Arg-Gly-His-Met-Ala-Arg-Lys-Lys) (MW: 1800.18)
SP-55265-1	Neurokinin A (4-10) [H-Asp-Ser-Phe-Val-Gly-Leu-Met-NH ₂ ; MW 766.92]
SP-88021-5	Neurokinin A; Substance K; Neuromedin L; NKA (AA: His-Lys-Thr-Asp-Ser-Phe-Val-Gly-Leu-Met-NH ₂) (MW: 1133.34)
SP-55366-1	Neurokinin B [H-Asp-Met-His-Asp-Phe-Phe-Val-Gly-Leu-Met-NH ₂ ; MW 121.45]
SP-88022-5	Neurokinin Receptor (393 - 407), rat (AA: Lys-Thr-Met-Thr-Glu-Ser-Ser-Phe-Tyr-Ser-Asn-Met-Leu-Ala) (MW: 1326.53)
SP-65295-1	Neuromedin (U25), human (AA: Phe-Arg-Val-Asp-Glu-Glu-Phe-Gln-Ser-Pro-Phe-Ala-Ser-Gln-Ser-Arg-Gly-Tyr-Phe-Leu-Phe-Arg-Pro-Arg-Asn-NH ₂)
SP-66570-1	Neuromedin (U25), porcine (AA: Phe-Lys-Val-Asp-Glu-Glu-Phe-Gln-Gly-Pro-Ile-Val-Ser-Gln-Asn-Arg-Arg-Tyr-Phe-Leu-Phe-Arg-Pro-Arg-Asn-NH ₂)
SP-60388-5	Neuromedin (U8), porcine (AA: Tyr-Phe-Leu-Phe-Arg-Pro-Arg-Asn-NH ₂) (MW: 1111.32)
SP-55197-1	Neuromedin [H-Lys-Ile-Pro-Tyr-Ile-Leu-OH; MW 745.97]
SP-52280-1	Neuromedin B porcine [Gly-Asn-Leu-Trp-Ala-Thr-Gly-His-Phe-Met-NH ₂ ; MW 1132.3]
SP-52281-1	Neuromedin C, porcine GRP [Gly-Asn-His-Trp-Ala-Val-Gly-His-Leu-Met-NH ₂ ; MW 112.3]
SP-100034-1	Neuromedin S (human) (AA: Ile-Leu-Gln-Arg-Gly-Ser-Gly-Thr-Ala-Ala-Val-Asp-Phe-Thr-Lys-Lys-Asp-His-Thr-Ala-Thr-Trp-Gly-Arg-Pro-Phe-Phe-Leu-Phe-Arg-Pro-Arg-Asn-NH ₂) (MW: 1326.53)
SP-100037-1	Neuromedin S (rat) (AA: Leu-Pro-Arg-Leu-Leu-His-Thr-Asp-Ser-Arg-Met-Ala-Thr-Ile-Asp-Phe-Pro-Lys-Lys-Asp-Pro-Thr-Thr-Ser-Leu-Gly-Arg-Pro-Phe-Phe-Leu-Phe-Arg-Pro-Arg-Asn-NH ₂) (MW: 1326.53)

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