

Product Data Sheet

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**Cat#**            **SP-88498-1**

**Description:** Anxiety Peptide (AA: Gln-Ala-Thr-Val-Gly-Asp-Val-Asn-Thr-Asp-Arg-Pro-Gly-Leu-Leu-Asp-Leu-Lys)  
(MW: 1912.15)

**Size:**            1 mg

**Purity:**         >95%

**Store:**          Desiccated at -20oC.

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**Description:**

Anxiety Peptide also known as octadecaneuropeptide (ODN) is a biologically active fragment of diazepam-binding inhibitor (DBI). It exerts a number of behavioral and neurophysiological activities. In brain, DBI and its two major processing products [DBI 33-50, or octadecaneuropeptide (ODN) and DBI 17-50, or triakontatetrapeptide (TTN)] are unevenly distributed in neurons, with the highest concentrations of DBI (10 to 50 microMs) Diazepam binding inhibitor (DBI) acts in brain by binding to GABAA/benzodiazepine receptors (GBR) and to mitochondrial benzodiazepine receptors (MBR). DBI acting at MBR has been shown to be an effector of ACTH-induced steroidogenesis and stress is known to change the level of GBR and MBR.

Recent reports that DBI and some of its fragments inhibit (in nanomolar concentrations) glucose-induced insulin release from pancreatic islets and bind acyl-coenzyme A with high affinity support the hypothesis that DBI is a precursor of biologically active peptides with multiple actions in the brain and in peripheral tissues.

In vitro, experimental, and clinical studies suggest that benzodiazepine receptors and DBI play a major role in regulating steroid production in both the adrenals and central nervous system, and may be involved in the activation of the hypothalamic-pituitary-adrenal axis in stress response. Central and peripheral benzodiazepine (BDZ) receptors together with their ligands form the molecular basis of a novel regulatory network that contributes to the effects of anxiety on immune status.

**References:**

Costa; *E Life Sci.* 1991;49 (5):325-44; Ferrarese C *Psychoneuroendocrinology.* 1993;18(1):3-22. Zavala F *Pharmacol Ther.* 1997 Sep 75(3):199-216. Sean M. Smith *Dialogues Clin Neurosci.* 2006 December; 8(4): 383-395.

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**Related items:**

**Catalog#**        **ProdDescription**

SP-89044-1        Diazepam-Binding Inhibitor Fragment, human (AA: Gln-Ala-Thr-Val-Gly-Asp-Ile-Asn-Thr-Glu-Arg-Pro-Gly-Met-Leu-Asp-Phe-Thr-Gly-Lys) (MW: 2150.41)

SP-88498-1        140109P

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