Product Data Sheet

Cat# **SP-89701-1**

Description: Biotin-(Arg8)-Vasopressin (AA: Biotin-Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH2 (Disulfide bridge:Cys1-Cys6)) (MW: 1310.55)

Size: 1 mg

Purity: >95%

Store: Desiccated at -20oC.

Arginine vasopressin (AVP), also known as argipressin or antidiuretic hormone (ADH), is a human hormone that is released when the body is low on water; it causes the kidneys to conserve water, but not salt, by concentrating the urine and reducing urine volume. It also raises blood pressure by inducing moderate vasoconstriction. It has various effects in the brain. A very similar substance, lysine vasopressin (LVP) or lypressin, has the same function in pigs and is often used in human therapy. Vasopressin is a peptide hormone. It is derived from a preprohormone precursor that is synthesized in the hypothalamus, from which it is liberated during transport to the posterior pituitary. Most of it is stored in the posterior part of the pituitary gland to be released into the blood stream; some of it is also released directly into the brain. AVP allows water reabsorption by the introduction of additional water channels in cortical and inner medullary collecting ducts.

Vertebrate Vasopressin Family		
Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH2	Argipressin (AVP, ADH)	Most mammals
Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Lys-Gly-NH2	Lypressin (LVP)	Pigs, hippos, warthogs, some marsupials
Cys-Phe-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH2	Phenypressin	Some marsupials
Cys-Tyr-Ile-Gln-Asn-Cys-Pro-Arg-Gly-NH2	Vasotocin	Non-mammals

One of the most important roles of AVP is to regulate the body's retention of water; it is released when the body is dehydrated and causes the kidneys to conserve water, thus concentrating the urine and reducing urine volume. At high concentrations, it also raises blood pressure by inducing moderate vasoconstriction. In addition, it has a variety of neurological effects on the brain, having been found, for example, to influence pair-bonding in voles. The high-density distributions of vasopressin receptor AVPr1a in prairie vole ventral forebrain regions have been shown to facilitate and coordinate reward circuits during partner preference formation, critical for pair bond formation. A very similar substance, lysine vasopressin (LVP) or lypressin, has the same function in pigs and is often used in human therapy.

Arg8-vasopressin is also a neurotransmitter in the central nervous system. It is implicated in a variety of physiological processes including diuresis, vasoregulation, and memory. Regulates water balance by antidiuretic action; contracts arterioles (vasopressor action).

References: https://en.wikipedia.org/wiki/Vasopressin; Caldwell HK (2006) In Lajtha A, Lim R. Handbook of Neurochemistry and Molecular Neurobiology: Neuroactive Proteins and Peptides (3rd ed.). Berlin: Springer. pp. 573–607; Sands JM (2011) Trans. Am. Clin. Climatol. Assoc. 122: 82–92; Liu Z (2007) BMC Syst Biol 1: 19;

Related Items

Catalog#	ProdDescription
PP-1810	Vasopressin Acetate
PP-1820	Vasopressin, 8-L-Arginine
RP-1504	Vasopressin
SP-55427-1	[Ly8] Vasopressin [H-Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Lys-Gly-Nh2 (Cys1-Cys6); MW: 1056.24]
SP-89700-5	[Arg8]-Vasopressin [Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH2; (Disulfide bridge:Cys1-Cys6); MW: 1086.25]
SP-89701-1	"Biotin-(Arg8)-Vasopressin (AA: Biotin-Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH2 (Disulfide bridge:Cys1-Cys6)) (MW: 1310.55)"
SP-89702-5	[Arg8]-Vasopressin (free acid) [Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly; (Disulfide bridge:Cys1-Cys6); MW: 1085.24]
SP-89703-5	[Arg8,des-Gly-NH29]-Vasopressin [Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg; (Disulfide bridge:Cys1-Cys6); MW: 1028.18]
SP-89704-5	[Arg8]-Vasopressin (4-9) [Gln-Asn-Cys-Pro-Arg-Gly-NH2; MW: 672.76]
SP-89705-1	Val-Asp-(Arg8)-Vasopressin (AA: Val-Asp-Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH2 (Disulfide bridge: Cys3-Cys8)) (MW: 1298.48)

SP-89701-1-Biotin-Arg8-Vasopressin 120703A

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