

Vasopressin

Cat.No. 403 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: not tested yet IP: not tested yet ICC: not tested yet IHC: 1 : 500 IHC-P/FFPE: 1 : 500
Immunogen	Synthetic peptide corresponding to AA 24 to 32 from mouse Vasopressin-neurophysin2-copeptin (UniProt Id: P35455)
Reactivity	Reacts with: mouse (P35455), rat (P01186). Other species not tested yet.
Specificity	The antibody recognizes Arginine-vasopressin. It may crossreact with the unprocessed precursor protein.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Vasopressin, also referred to as arginine-vasopressin (**AVP**) or antidiuretic hormone (**ADH**), is a nine amino acid peptide hormone secreted from the posterior pituitary in response to reductions in plasma volume and increases in plasma osmolarity. It is proteolytically processed from a precursor protein that is mainly synthesized in neurons of the hypothalamus.

Along with its carrier protein, neurophysin 2, vasopressin is packaged into neurosecretory vesicles and transported axonally to the nerve endings in the neurohypophysis where it is either stored or secreted into the bloodstream. Its release increases the amount of solute-free water reabsorbed back into the circulation from the filtrate in the kidney tubules of the nephrons. Further, vasopressin causes vasoconstriction of peripheral vessels, which increases peripheral vascular resistance and raises arterial blood pressure.

Some vasopressin is also released directly into the brain and is involved in cognition, social behavior, sexual motivation, pair-bonding, and maternal behavior.

Mutations in the vasopressin gene cause autosomal dominant neurohypophyseal diabetes insipidus (ADNDI), which is characterised by persistent thirst, polydipsia and polyuria.

Selected General References

- Neuromodulation by oxytocin and vasopressin in the central nervous system as a basis for their rapid behavioral effects. Stoop R
Current opinion in neurobiology (2014) 29: 187-93.
- Oxytocin and vasopressin: social neuropeptides with complex neuromodulatory functions. Benarroch EE
Neurology (2013) 80(16): 1521-8.
- Vasopressin: behavioral roles of an "original" neuropeptide. Caldwell HK, Lee HJ, Macbeth AH, Young WS
Progress in neurobiology (2008) 84(1): 1-24.