Datasheet: AHP373

Description:	RABBIT ANTI DYNORPHIN A (aa1-17)
Specificity:	DYNORPHIN A (aa1-17)
Format:	Serum
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			1/100 - 1/1500
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Radioimmunoassays	▪			1/10,000

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1)**This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.Sodium citrate buffer pH 6.0 is recommended for this purpose.**

Overnight incubation is recommended for paraffin sections.

Target Species

Pig

Species Cross Reactivity

Reacts with: Rat, Rhesus Monkey, Human

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Serum - liquid

Antiserum Preparation	Antisera to Dynorphin A 1-17 were raised by repeated immunisation of rabbits with highly purified antigen. Whole serum is supplied - diluted.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide 0.1% Bovine Serum Albumin
Immunogen	Dynorphin A 1-17: Tyr-Gly-Gly-Phe-Leu-Arg-Arg-Ile-Arg-Pro-Lys-Leu-Lys-Trp-Asp-Asn-Gln (porcine)
External Database Links	**UniProt:** P01213 Related reagents **Entrez Gene:** 5173 PDYN Related reagents
RRID	AB_322028
Specificity	**Rabbit anti dynorphin A antibody** recognizes the opioid peptide dynorphin A (Fischli et al. 1982), a cleavage product of big dynorphin, itself derived from the precursor pro-encephalin-B, also known as preprodynorphin. Rabbit anti dynorphin A antibody binds to both dynorphin A 1-17 and 1-8 but not with other big dynorphin cleavage products such as dynorphin B, also known as rimorphin. Dynorphin A immunoreactive cells are found in the paraventricular and supraoptic nucleus and in hippocampal mossy fibers of rat brain following kainic acid administration and colchicine induced neurotoxicity (McGinty et al. 1983). Dynorphins play a role in multiple physiologic processes including pain perception (Wang *et al.* 2001)and responses to stress (Rácz *et al.* 2013). They mimic and compete with a number of opiate drugs(Chavkin 2013). Dysregulation of dynorphin A expression has been linked to progression of neurodegenerative conditions such as Altzheimer's disease (Yakovleva *et al.* 2007) and appears to play a significant role in the pathobiology of epilepsy (Loacker *et al.* 2007). Rabbit anti dynorphin antibody has been used successfully for the immunohistochemical demonstration of 'mossy fibre' sprouting in hippocampal sclerosis (Thom *et al.* 2009) and in a virally induced disease model in the rat (Solbrig *et al.* 2006).
References	1. Khachaturian, H. *et al.* (1985) Prodynorphin peptide immunocytochemistry in rhesus monkey brain. Peptides. 6 Suppl 2: 155-66. 2. Sherman, T.G. *et al.* (1988) Regulation of hypothalamic magnocellular neuropeptides and their mRNAs in the Brattleboro rat: coordinate responses to further osmotic challenge. J Neurosci. 8 (10): 3785-96. 3. Zardetto-smith, A.M. *et al.* (1988) Lateral hypothalamic dynorphinergic efferents to the amygdala and brainstem in the rat. Peptides. 9 (5): 1121-7. 4. Beck, H. *et al.* (2000) Synaptic plasticity in the human dentate gyrus. J Neurosci. 20

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11. Martinian, L. *et al.* (2012) Calbindin D28K expression in relation to granule cell dispersion, mossy fibre sprouting and memory impairment in hippocampal sclerosis: a surgical and post mortem series. Epilepsy Res. 98 (1): 14-24.
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13. Novy, J. *et al.* (2013) The lifelong course of chronic epilepsy: the Chalfont experience. Brain. 136 (Pt 10): 3187-99.
14. Bandopadhyay, R. *et al.* (2014) A comparative study of the dentate gyrus in hippocampal sclerosis in epilepsy and dementia. Neuropathol Appl Neurobiol. 40 (2): 177-90.
15. Shoham, S. *et al.* (2000) Diet Restriction Increases Enkephalin- and Dynorphin-like Immunoreactivity in Rat Brain and Attenuates Long-term Retention of Passive Avoidance. Nutr Neurosci. 3 (1): 41-55.

Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/AHP373 10041
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...)	FITC
Goat Anti Rabbit IgG (H/L) (STAR124...)	HRP
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP

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