ARG22409
anti-Dynorphin A antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Dynorphin A This 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 human 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 human 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).
Tested Reactivity	Hu, Rat, Pig, R. Mk
Tested Application	IHC-Fr, IHC-P, RIA
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Dynorphin A
Species	Human
Immunogen	Dynorphin A 1-17: Tyr-Gly-Gly-Phe-Leu-Arg-Arg-Ile-Arg-Pro-Lys-Leu-Lys-Trp-Asp-Asn-Gln (porcine)
Conjugation	Un-conjugated
Alternate Names	Big Dyn; 1-8; Dynorphin B-29; Dynorphin B; ADCA; SCA23; Preprodynorphin; PENKB; Dyn-A17; 1-17; Proenkephalin-B; Dynorphin A; 1-13; Beta-neoendorphin-dynorphin; Dyn-B

Application Instructions

Application table

Application	Dilution
IHC-Fr	1:100 - 1:1500
IHC-P	Assay-dependent
RIA	1:10000

Application Note

IHC-P: 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.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Serum
Buffer	PBS, 0.09% Sodium azide and 0.1% BSA.
Preservative	0.09% Sodium azide
Stabilizer	0.1% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	PDYN
Gene Full Name	prodynorphin
Background	The protein encoded by this gene is a preproprotein that is proteolytically processed to form the secreted opioid peptides beta-neoendorphin, dynorphin, leu-enkephalin, rimorphin, and leumorphin. These peptides are ligands for the kappa-type of opioid receptor. Dynorphin is involved in modulating responses to several psychoactive substances, including cocaine. Multiple alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2010]
Function	Leu-enkephalins compete with and mimic the effects of opiate drugs. They play a role in a number of physiologic functions, including pain perception and responses to stress (By similarity). Dynorphin peptides differentially regulate the kappa opioid receptor. Dynorphin A(1-13) has a typical opiod activity, it is 700 times more potent than Leu-enkephalin (By similarity). Leumorphin has a typical opiod activity and may have anti-apoptotic effect. [UniProt]
Calculated Mw	28 kDa
PTM	The N-terminal domain contains 6 conserved cysteines thought to be involved in disulfide bonding and/or processing.