SunLong Biotech Co.,LTD
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**[ Primary Antibody ]**

# Rabbit Anti-Big dynorphin antibody

**Catalog Number: SL14473R**

**FOR RESEARCH USE ONLY**

**[ DATASHEET ]**

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|---|---|
| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Target:** | Big dynorphin |
| **Immunogen:** | KLH conjugated synthetic peptide derived from human Big dynorphin: 207-238/254 |
| **Purification:** | affinity purified by Protein A |
| **Concentration:** | 1mg/ml |
| **Storage:** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. |
| **Applications:** | WB=1:500-2000<br>IHC-P=1:100-500<br>IHC-F=1:100-500<br>IF=1:100-500 （Paraffin sections need antigen repair）<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Reactivity:** | Human,Mouse,Rat(predicted:Pig,Cow,Horse,Rabbit,Sheep) |
| **Predicted MW.:** | 26kDa |
| **Subcellular Location:** | cytoplasmic |
| **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]<br>**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.<br>Dynorphin peptides differentially regulate the kappa opioid receptor. |

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| | Dynorphin A(1-13) has a typical opiod activity, it is 700 times more potent than Leu-enkephalin.<br>Leumorphin has a typical opiod activity and may have anti-apoptotic effect.<br>**Subcellular Location:** Secreted.<br>**Post-translational modifications:** The N-terminal domain contains 6 conserved cysteines thought to be involved in disulfide bonding and/or processing.<br>DISEASE: Defects in PDYN are the cause of spinocerebellar ataxia type 23 (SCA23) [MIM:610245]. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA23 is an adult-onset autosomal dominant form characterized by slowly progressive gait and limb ataxia, with variable additional features, including peripheral neuropathy and dysarthria.<br>**Similarity:** Belongs to the opioid neuropeptide precursor family.<br>**Database links:**<br>**Entrez Gene:** 5173 Human<br>**Entrez Gene:** 281385 Cow<br>**Entrez Gene:** 18610 Mouse<br>**Entrez Gene:** 445529 Pig<br>**Entrez Gene:** 29190 Rat<br>Omim: 131340 Human<br>**SwissProt:** Q95104 Cow<br>**SwissProt:** P01213 Human<br>**SwissProt:** O35417 Mouse<br>**SwissProt:** P06300 Rat<br>**Unigene:** 22584 Human<br>**Unigene:** 6239 Mouse<br>**Unigene:** 44471 Rat |

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## [ VALIDATION IMAGES ]

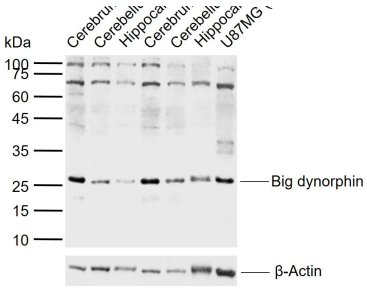



Figure 1. Sample: Lane 1: Mouse Cerebrum tissue lysates Lane 2: Mouse Cerebellum tissue lysates Lane 3: Mouse Hippocampus tissue lysates Lane 4: Rat Cerebrum tissue lysates Lane 5: Rat Cerebellum tissue lysates Lane 6: Rat Hippocampus tissue lysates Lane 7: Human U87MG cell lysates Primary: Anti-Big dynorphin (SL14473R) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 26 kDa Observed band size: 26 kDa

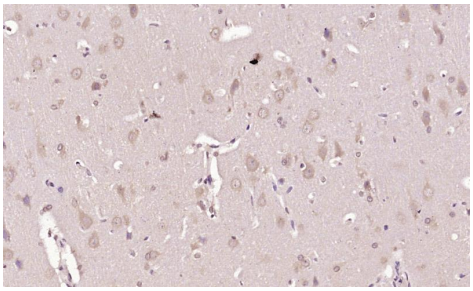


Figure 2. Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Big dynorphin) Polyclonal Antibody, Unconjugated (SL14473R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

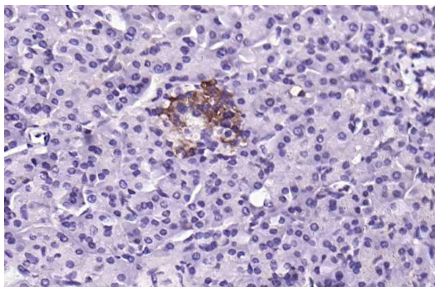


Figure 3. Paraformaldehyde-fixed, paraffin embedded (human pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Incubation with (Big dynorphin) Polyclonal Antibody, Unconjugated (SL14473R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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