SunLong Biotech Co.,LTD
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Rabbit Anti-CAPON antibody

SL11987R

Product Name	CAPON
Chinese Name	神经型一氧化氮合成酶 Binding protein 抗体
Alias	NOS1AP; C terminal PDZ domain ligand of neuronal nitric oxide synthase (CAPON); C termina ligand of neuronal nitric oxide synthase; C terminal PDZ ligand of neuronal nitric oxide synthas C-terminal PDZ ligand of neuronal nitric oxide synthase protein; CAPON; CAPON_HUMAN; C terminal PDZ ligand of neuronal nitric oxide synthase protein; Carboxyl-terminal PDZ ligand of oxide synthase protein; Ligand of neuronal nitric oxide synthase with carboxyl terminal PDZ do MGC138500; Nitric oxide synthase 1 (neuronal) adaptor protein; Nitric oxide synthase 1 adapto
Research Area	Neurobiology Signal transduction Binding protein
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted: Human, Mouse, Rat, Cow, Horse, Sheep,)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	56kDa
Cellular localization	The nucleus cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human CAPON: 128-170/506
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

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Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or d applications.

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CAPON (carboxy-terminal PDZ ligand of nNOS) selectively binds within the 100 amino acid Pl the neuronal nitric oxide synthase (nNOS), but not to endothelial NOS or inducible NOS, and se in the cytosol. Biosynthesis of the neurotransmitter nitric oxide (NO) requires the association of various synaptic proteins, including syntrophin, postsynaptic density (PSD)95 and PSD93 throug PDZ domain. These proteins facilitate the transport of nNOS to the plasma membrane, where it i activated by NMDA-receptor mediated calcium channels. The association of nNOS with PSD95 regulated by CAPON. The carboxy terminus of CAPON binds to the PDZ domain, competes wi PSD93 for binding to nNOS and in turn prevents the translocation and catalytic activation of nN

Product Detail

Function:
Adapter protein involved in neuronal nitric-oxide (NO) synthesis regulation via its association w nNOS/NOS1. The complex formed with NOS1 and synapsins is necessary for specific NO and s functions at a presynaptic level. Mediates an indirect interaction between NOS1 and RASD1 lead the ability of NOS1 to activate RASD1. Competes with DLG4 for interaction with NOS1, possib NOS1 activity by regulating the interaction between NOS1 and DLG4.

Subunit:
Interacts with the PDZ domain of NOS1 or the second PDZ domain of DLG4 through its C-term with RASD1 and SYN1, SYN2 and SYN3 via its PID domain. Forms a ternary complex with NOS Forms a ternary complex with NOS1 and SYN1

Similarity:
Contains 1 PID domain.

SWISS:
O75052

Gene ID:
9722

Database links:

Entrez Gene: 9722 Human

Entrez Gene: 70729 Mouse

Entrez Gene: 192363 Rat

Omim: 605551 Human

SwissProt: O75052 Human

SwissProt: Q9D3A8 Mouse

SwissProt: O54960 Rat