



Rabbit Anti-CAPON antibody

SL11987R

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| 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 terminal PDZ domain ligand of neuronal nitric oxide synthase; C terminal PDZ ligand of neuronal nitric oxide synthase protein; C-terminal PDZ ligand of neuronal nitric oxide synthase protein; CAPON; CAPON_HUMAN; Carboxyl terminal PDZ ligand of neuronal nitric oxide synthase protein; Carboxyl-terminal PDZ ligand of neuronal nitric oxide synthase protein; Ligand of neuronal nitric oxide synthase with carboxyl terminal PDZ domain; MGC138500; Nitric oxide synthase 1 (neuronal) adaptor protein; Nitric oxide synthase 1 adaptor protein. |
| Organism Species: | Rabbit |
| Clonality: | Polyclonal |
| React Species: | Human,Mouse,Rat,Cow,Horse,Sheep, |
| Applications: | WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user. |
| Molecular weight: | 56kDa |
| Cellular localization: | The nucleuscytoplasmicThe cell membrane |
| Form: | Lyophilized or Liquid |
| Concentration: | 1mg/ml |
| immunogen: | KLH conjugated synthetic peptide derived from human CAPON:128-170/506 |
| Lsotype: | IgG |
| Purification: | affinity purified by Protein A |
| Storage Buffer: | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| Storage: | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| PubMed: | PubMed |

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

Function:

Adapter protein involved in neuronal nitric-oxide (NO) synthesis regulation via its association with nNOS/NOS1. The complex formed with NOS1 and synapsins is necessary for specific NO and synapsin functions at a presynaptic level. Mediates an indirect interaction between NOS1 and RASD1 leading to enhance the ability of NOS1 to activate RASD1. Competes with DLG4 for interaction with NOS1, possibly affecting 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-terminus. Interacts with RASD1 and SYN1, SYN2 and SYN3 via its PID domain. Forms a ternary complex with NOS1 and RASD1. 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

Product Detail:

[SwissProt: O54960](#)Rat

Important Note:

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

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