

nNOS

Data Sheet

Catalog Number:	MO20029	Host:	Mouse
Ig Class:	IgG ₁ , Clone: NOS-125	Species Reactivity:	Human
Immunogen Sequence:	Recombinant protein corresponding to a portion of the C-terminus of the mature human nitric oxide synthase-1 protein.	Format:	Liquid- tissue culture supernatant containing 15mM sodium azide. Concentration 1 mg/ml.
Applications:	Immunohistochemistry on paraffin sections. Suggested dilution: 1:25 - 1:50. High temperature antigen unmasking technique. 60 minutes primary antibody incubation at 25 °C. Standard ABC technique Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.		
Storage:	Antibody can be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. <i>Avoid repeated freeze-thaw cycles.</i>		

Application Notes

Controls:

Tested on formalin-fixed, paraffin-embedded bowel tissue. Staining pattern is cytoplasmic. Not recommended for frozen tissue.

Description/Data:

Human nitric oxide synthases are a family of enzymes responsible for the synthesis of nitric oxide from L-arginine and molecular oxygen. There are at least three nitric oxide synthases; NOS I, also known as neuronal NOS or nNOS, NOS II, which is referred to as inducible NOS or iNOS and NOS III, also known as endothelial NOS or eNOS. As suggested by their nomenclature, these enzymes have different cellular distribution and are subjected to different regulatory mechanisms. NOS III, like NOS I, is a constitutive form of NOS and produces picomolar quantities of nitric oxide (NO) which plays a role in signal transmission and results in physiological effects. In the gastrointestinal tract, NO plays a protective role where it has direct microbiocidal properties and acts as a first line of mucosal defence against luminal organisms in the stomach. nNOS plays a role in the upregulation of microglial phospho-p38 MAPK. Such p38 MAPK activation in microglia is consistent with a potential role in the development of morphine antinociceptive tolerance.

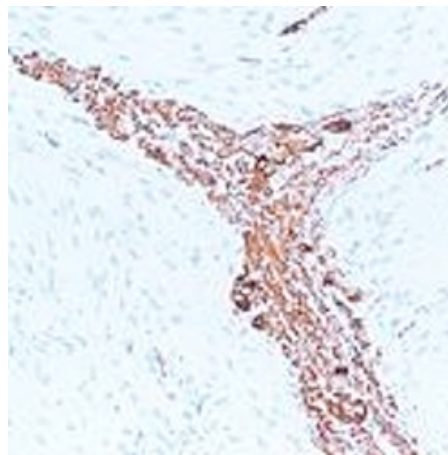


Image: Nitric oxide synthase-1 staining of human small intestine. Note cytoplasmic staining of enteric ganglia. Paraffin section.

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