Synaptic Systems

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NSF

Cat.No. 123 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 1000 (AP staining) **IP**: yes **ICC**: 1 : 500 **IHC**: 1 : 500 **IHC-P/FFPE**: yes
Immunogen	Synthetic peptide corresponding to AA 733 to 744 from rat NSF (UniProt Id: Q9QUL6)
Reactivity	Reacts with: human, rat, mouse, hamster. Other species not tested yet.
Specificity	Specific for NSF.
matching control	123-0P

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

N-ethylamide **s**ensitive **f**usion protein **NSF** functions together with SNAPs (soluble NSF attachment proteins) and SNAREs (SNAP receptors) in vesicular transport.
NSF is a homotrimer whose polypeptide subunits are made up of three distinct domains: an amino - terminal domain (N) and two homologous ATP-binding domains (D1 and D2). NSF is an ATPase that dissociates SNARE complexes, such as the core complex composed of synaptobrevin/VAMP, syntaxin 1 and SNAP 25 under ATP hydrolysis. The ability of the D1 domain to hydrolyze ATP is required for NSF activity. The D2 domain is required for trimerization, but its ability to hydrolyze ATP is not absolutely required for NSF function.

Selected General References

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Structure and conformational changes in NSF and its membrane receptor complexes visualized by quick-freeze/deep-etch electron microscopy.
Hanson PI, Roth R, Morisaki H, Jahn R, Heuser JE
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The synaptic vesicle cycle: a cascade of protein-protein interactions.
Südhof TC
Nature (1995) 375(6533): 645-53.

N-ethylmaleimide-sensitive fusion protein: a trimeric ATPase whose hydrolysis of ATP is required for membrane fusion.
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