

NSF

Cat.No. 123-0P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 733 to 744 from rat NSF (UniProt Id: Q9QUL6)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	123 002, 123 003, 123 004
Remarks	This control peptide consists of the synthetic peptide (REEGASPLDFD) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

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

N-ethylamide sensitive fusion 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

Mechanisms of synaptic vesicle exocytosis.
Lin RC, Scheller RH
Annual review of cell and developmental biology (2000) 16: 19-49.
Neurotransmitter release - four years of SNARE complexes.
Hanson PI, Heuser JE, Jahn R
Current opinion in neurobiology (1997) 7(3): 310-5.

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
Cell (1997) 90(3): 523-35.

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.
Whiteheart SW, Rossmagel K, Buhrow SA, Brunner M, Jaenicke R, Rothman JE
The Journal of cell biology (1994) 126(4): 945-54.