

Rabbit NSF Polyclonal Antibody | anti-NSF antibody

Anti-NSF Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19222	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

NSF; Polyclonal Antibody; Anti-NSF Antibody; Vesicle-fusing ATPase; EC 3. 6. 4. 6; N-ethylmaleimide-sensitive fusion protein; NEM-sensitive fusion protein; Vesicular-fusion protein NSF; N-ethylmaleimide sensitive factor; vesicle fusing ATPase; anti-NSF antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for NSF detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-NSF antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.1-0.25ug/ml Human, Mouse, Rat IHC-P: 2-5ug/ml Human, Mouse, Rat ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human NSF recombinant protein (Position: R4-Q636).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM (Flow Cytometry)

Figure 11. Flow Cytometry analysis of U937 cells using anti-NSF antibody (AAA19222). Overlay histogram showing U937 cells stained with AAA19222 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NSF Antibody (AAA19222, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 10. IF analysis of NSF using anti-NSF antibody (AAA19222). NSF was detected in immunocytochemical section of T-47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL rabbit anti-NSF Antibody (AAA19222) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 9. IHC analysis of NSF using anti-NSF antibody (AAA19222). NSF was detected in paraffin-embedded section of human renal clear cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NSF Antibody (AAA19222) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 8. IHC analysis of NSF using anti-NSF antibody (AAA19222). NSF was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NSF Antibody (AAA19222) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 7. IHC analysis of NSF using anti-NSF antibody (AAA19222). NSF was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NSF Antibody (AAA19222) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 6. IHC analysis of NSF using anti-NSF antibody (AAA19222). NSF was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-NSF Antibody (AAA19222) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).

ADDITIONAL INFORMATION

Related Product Information for anti-NSF antibody	N-ethylmaleimide-sensitive factor, also known as NSF, is an enzyme which in humans is encoded by the NSF gene. NSF is a homohexameric AAA ATPase involved in membrane fusion. NSF is ubiquitously found in the cytoplasm of eukaryotic cells. It is a central component of the cellular machinery in the transfer of membrane vesicles from one membrane compartment to another. During this process, SNARE proteins on two joining membranes (usually a vesicle and a target membrane such as the plasma membrane) form a tight complex. This aids fusion of the vesicle with the target membrane. It has been proposed that the role of NSF is to undo these SNARE complexes once membrane fusion has occurred, using the hydrolysis of ATP as an energy source, allowing the dissociated SNAREs to be recycled for reuse in further rounds of membrane fusion. This proposal remains controversial, however. Recent work indicates that the ATPase function of NSF does not function in recycling of vesicles but rather functions in the act of fusing vesicles with the plasma membrane.
References	1. "Entrez Gene: NSF N-ethylmaleimide-sensitive factor". 2. Hoyle J, Phelan JP, Bermingham N, Fisher EM (Nov 1996). "Localization of human and mouse N-ethylmaleimide-sensitive factor (NSF) gene: a two-domain member of the AAA family that is involved in membrane fusion". Mammalian Genome. 7 (11): 850-2. 3. Wilson DW, Whiteheart SW, Wiedmann M, Brunner M, Rothman JE (May 1992). "A multisubunit particle implicated in membrane fusion". The Journal of Cell Biology. 117 (3): 531-8.

NCBI AND UNIPROT INFORMATION

NCBI GI #	156564401
NCBI GeneID	4905
NCBI Accession #	NP_006169.2
NCBI GenBank Nucleotide #	NM_006178.3
UniProt Accession #	P46459; Q8N6D7; Q9UKZ2; A8K2D9
Molecular Weight	82,594 Da
NCBI Official Full Name	vesicle-fusing ATPase
NCBI Official Synonym Full Names	N-ethylmaleimide-sensitive factor
NCBI Official Symbol	NSF
NCBI Official Synonym Symbols	SKD2
NCBI Protein Information	vesicle-fusing ATPase; NEM-sensitive fusion protein; vesicular-fusion protein NSF; N-ethylmaleimide-sensitive fusion protein; N-ethylmaleimide-sensitive factor-like protein
UniProt Protein Name	Vesicle-fusing ATPase
UniProt Gene Name	NSF
UniProt Synonym Gene Names	NEM-sensitive fusion protein
UniProt Entry Name	NSF_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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