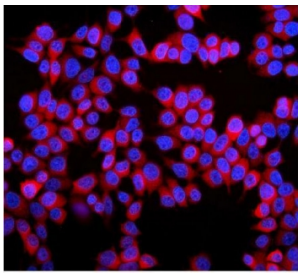
STMN1 Antibody / Stathmin 1 Polyclonal Antibody (R31986)

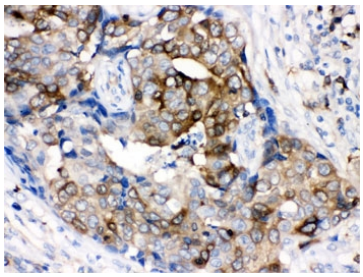
Catalog No.	Formulation	Size
R31986	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

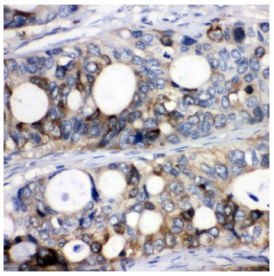
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P16949
Localization	Cytoplasmic
Applications	Western blot: 0.1-0.5ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml Immunofluorescence (FFPE): 2-4ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This STMN1 Antibody / Stathmin 1 Polyclonal Antibody is available for research use only.



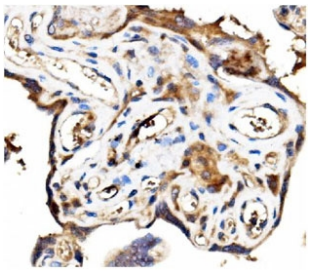
STMN1 Antibody by IF in human MCF-7 cells. Immunofluorescent staining of FFPE human MCF-7 cells using STMN1 Antibody (red), with DAPI nuclear counterstaining (blue). Stathmin 1 immunoreactivity is predominantly cytoplasmic. Heat-induced epitope retrieval was performed by steaming in citrate buffer, pH 6, for 20 minutes.



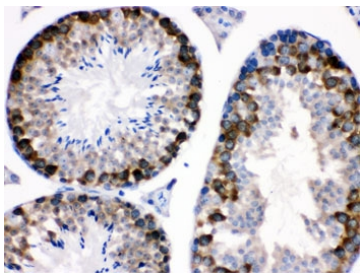
STMN1 Antibody by IHC in human breast cancer. Immunohistochemistry of FFPE human breast cancer tissue using STMN1 Antibody. Brown immunoreactivity is prominent in the cytoplasm of tumor cells, with variable staining intensity across the tissue. Heat-induced epitope retrieval was performed by boiling sections in 10 mM citrate buffer, pH 6, for 20 minutes.



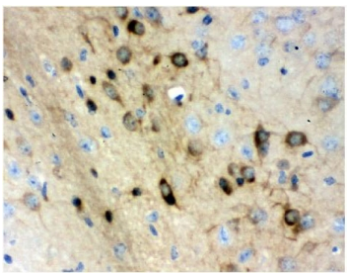
IHC testing of FFPE human intestinal cancer tissue with Stathmin 1 antibody. HIER: Boil the paraffin sections in pH 8 EDTA for 20 minutes and allow to cool prior to staining.



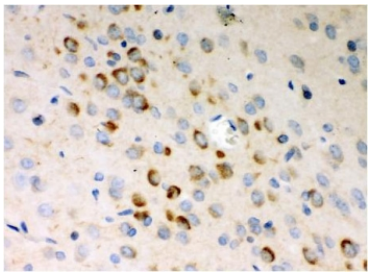
IHC testing of FFPE human placental tissue with Stathmin 1 antibody. HIER: Boil the paraffin sections in pH 8 EDTA for 20 minutes and allow to cool prior to staining.



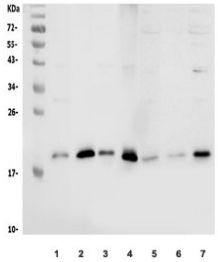
STMN1 Antibody by IHC in mouse testis. Immunohistochemistry of FFPE mouse testis tissue using STMN1 Antibody. Brown immunoreactivity is visible in cells lining the seminiferous tubules, with stronger staining in portions of the germinal epithelium. Heat-induced epitope retrieval was performed by boiling sections in 10 mM citrate buffer, pH 6, for 20 minutes.



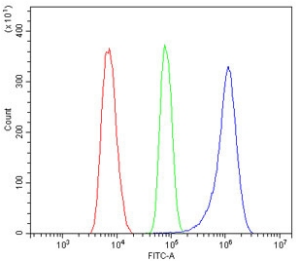
IHC testing of FFPE mouse brain tissue with Stathmin 1 antibody. HIER: Boil the paraffin sections in pH 8 EDTA for 20 minutes and allow to cool prior to staining.



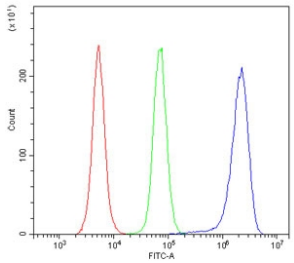
IHC testing of FFPE rat brain tissue with Stathmin 1 antibody. HIER: Boil the paraffin sections in pH 8 EDTA for 20 minutes and allow to cool prior to staining.



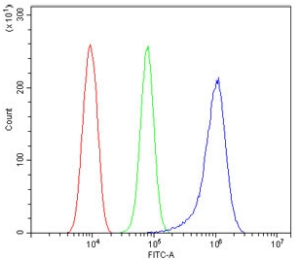
STMN1 Antibody by WB in rat, mouse, and human samples. Western blot analysis of rat brain (lane 1), rat testis (lane 2), mouse brain (lane 3), mouse testis (lane 4), human MDA-MB-453 (lane 5), SH-SY5Y (lane 6), and Raji (lane 7) lysates using STMN1 Antibody. The expected molecular weight of stathmin 1 is approximately 17 kDa.



STMN1 Antibody by FACS in human THP-1 cells. Flow cytometry analysis of human THP-1 cells using STMN1 Antibody at 1 ug per million cells, with goat serum blocking. The histogram shows cells alone (red), isotype control (green), and STMN1 antibody staining (blue), demonstrating a rightward fluorescence shift relative to the controls.



Flow cytometry testing of mouse RAW264.7 cells with Stathmin 1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Stathmin 1 antibody.



Flow cytometry testing of rat RH-35 cells with Stathmin 1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Stathmin 1 antibody.

Description

STMN1 Antibody / Stathmin 1 Polyclonal Antibody recognizes stathmin 1, a cytoplasmic phosphoprotein encoded by the STMN1 gene. Also known as oncoprotein 18, OP18, and metablastin, stathmin 1 is an important regulator of microtubule dynamics. The protein influences microtubule assembly and disassembly by interacting with soluble tubulin and promoting microtubule destabilization. These activities contribute to cytoskeletal organization, cell division, migration, and the maintenance of cellular architecture.

Stathmin 1 is a relatively small protein with a molecular weight of approximately 17 kDa. Its regulatory activity is controlled through phosphorylation at several serine residues, including Ser16, Ser25, Ser38, and Ser63. Phosphorylation generally reduces its ability to destabilize microtubules, allowing cells to coordinate microtubule organization with intracellular signaling and cell cycle progression. Multiple protein kinases participate in this regulation, linking stathmin activity to signaling pathways that respond to growth factors and mitogenic stimulation.

During mitosis, microtubules undergo rapid reorganization to form the mitotic spindle, which is responsible for chromosome segregation. Stathmin 1 contributes to this process by regulating the balance between polymerized microtubules and soluble tubulin. Changes in its phosphorylation state help coordinate microtubule dynamics as cells progress through different stages of division. Its activity is also relevant to cell migration, where continuous cytoskeletal

remodeling supports changes in cell shape and movement.

STMN1 expression is frequently associated with proliferating cells and has been investigated in numerous malignancies. Elevated expression has been reported in several tumor types, including breast, lung, colorectal, and liver cancers. Research has examined relationships between stathmin abundance, tumor progression, invasive behavior, and responses to microtubule-targeting drugs. However, these associations vary with tumor type and biological context, and increased expression does not independently establish a particular clinical outcome.

Beyond cancer biology, stathmin 1 participates in developmental processes requiring coordinated cytoskeletal remodeling. Its regulation illustrates how phosphorylation-dependent signaling influences the organization of structural proteins within cells. NSJ Bioreagents offers this STMN1 Antibody for investigating microtubule dynamics, mitotic regulation, cellular proliferation, and the relationship between cytoskeletal organization and intracellular signaling.

Explore our Cell Biology Antibodies for additional research tools targeting proteins involved in microtubule dynamics, mitotic spindle organization, cell division, and cytoskeletal regulation.

Application Notes

Optimal dilution of the STMN1 Antibody / Stathmin 1 Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids ASSDIQVKELEKRASGQAFELILSPRSKESVPE of human STMN1 were used as the immunogen for the Stathmin 1 antibody.

Storage

After reconstitution, the Stathmin 1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Stathmin 1 antibody, Stathmin antibody, Oncoprotein 18 antibody, OP18 antibody, Leukemia-associated phosphoprotein p18 antibody

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