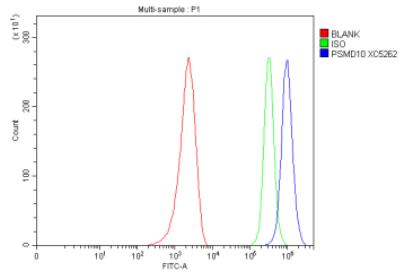
PSMD10 Antibody / Gankyrin (FY12357)

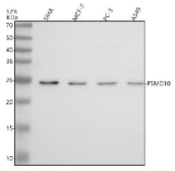
Catalog No.	Formulation	Size
FY12357	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	O75832
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This PSMD10 antibody is available for research use only.



Flow Cytometry analysis of MCF-7 cells using anti-PSMD10 antibody. Overlay histogram showing MCF-7 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PSMD10 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of PSMD10 using anti-PSMD10 antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human SIHA whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: human whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PSMD10 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. The expected molecular weight of PSMD10 is ~24 kDa.

Description

The PSMD10 antibody targets 26S proteasome non-ATPase regulatory subunit 10, also known as Gankyrin. Encoded by the PSMD10 gene, this oncoprotein functions as a regulatory component of the 19S proteasome and as an adaptor in cell cycle and tumor signaling. 26S proteasome non-ATPase regulatory subunit 10 promotes degradation of key regulatory proteins, including p53 and retinoblastoma protein (Rb), thereby influencing cell proliferation, differentiation, and oncogenic transformation. The PSMD10 antibody provides a powerful reagent for investigating proteasome dynamics, tumorigenesis, and protein degradation mechanisms.

Gankyrin contains multiple ankyrin repeats that mediate proteinÂ–protein interactions with proteasome subunits and cell cycle regulators. It associates with CDK4, MDM2, and the 26S proteasome base complex to coordinate protein turnover. By enhancing MDM2-mediated ubiquitination of p53, 26S proteasome non-ATPase regulatory subunit 10 reduces tumor suppressor activity and contributes to cellular transformation. The PSMD10 antibody enables direct detection of Gankyrin expression in tumor tissues and cultured cells, supporting studies of its oncogenic potential and correlation with clinical outcomes.

Overexpression of Gankyrin has been observed in numerous cancers, including hepatocellular carcinoma, colorectal carcinoma, and breast cancer. It accelerates cell cycle progression, promotes resistance to apoptosis, and enhances metastatic potential. The PSMD10 antibody allows researchers to quantify expression levels and subcellular localization of this protein, helping elucidate its functional role in oncogenic signaling pathways. Downregulation or inhibition of 26S proteasome non-ATPase regulatory subunit 10 has been shown to restore p53 stability and suppress tumor growth, making it an appealing therapeutic target.

Beyond its oncogenic properties, Gankyrin contributes to proteasome assembly and quality control. It stabilizes interactions between ATPase and non-ATPase subunits of the 19S regulatory particle, facilitating efficient protein degradation. The PSMD10 antibody is suitable for western blotting, immunoprecipitation, and immunohistochemistry, allowing characterization of proteasomal function in normal and malignant cells. Its application extends to studies of proteostasis, cell cycle control, and ubiquitin-mediated degradation pathways.

NSJ Bioreagents provides the PSMD10 antibody to ensure consistent detection of 26S proteasome non-ATPase regulatory subunit 10 across diverse experimental models. This reagent is instrumental for cancer researchers exploring Gankyrin's interactions with p53, Rb, and MDM2, as well as for cell biologists investigating proteasomal regulation. By delivering reproducible performance and high specificity, the PSMD10 antibody supports discovery in tumor biology and protein degradation research, illuminating mechanisms that link the proteasome to cell proliferation and oncogenesis.

Application Notes

Optimal dilution of the PSMD10 antibody should be determined by the researcher.

Immunogen

E.coli-derived human Gankyrin/PSMD10 recombinant protein (Position: M1-G226) was used as the immunogen for the

PSMD10 antibody.

Storage

After reconstitution, the PSMD10 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.