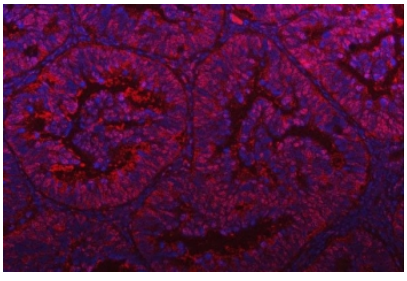
# PSMD4 Antibody / ASF1 / RPN10 / S5A (RQ8154)

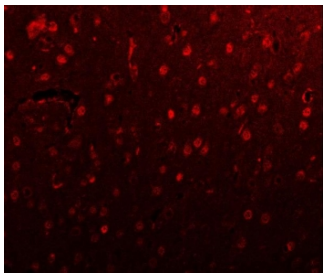
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ8154 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

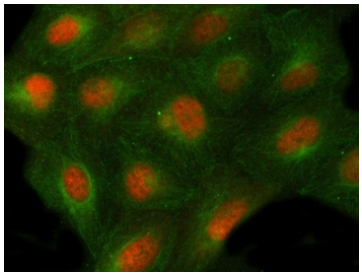
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | P55036 |
| **Localization** | Nuclear, cytoplasmic |
| **Applications** | Western blot: 0.5-1ug/ml<br>Immunohistochemistry (FFPE): 2-5ug/ml<br>Immunofluorescence: 5ug/ml<br>Flow cytometry: 1-3ug/million cells<br>Direct ELISA: 0.1-0.5ug/ml<br>Immunoprecipitation: 2ug per 500ug of lysate |
| **Limitations** | This PSMD4 antibody is available for research use only. |



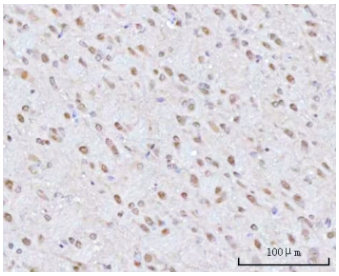
Immunofluorescent staining of FFPE human intestinal cancer tissue with PSMD4 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH8 EDTA buffer for 20 min.



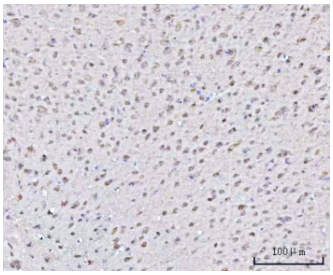
Immunofluorescent staining of FFPE rat brain tissue with PSMD4 antibody (red). HIER: steam section in pH8 EDTA buffer for 20 min.



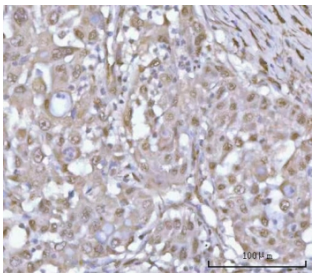
Immunofluorescent staining of FFPE human U-2 OS cells with PSMD4 antibody (red) and Beta Tubulin mAb (green). HIER: steam section in pH6 citrate buffer for 20 min.



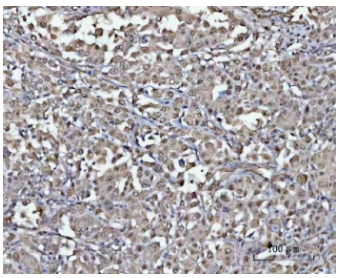
IHC staining of FFPE rat brain tissue with PSMD4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



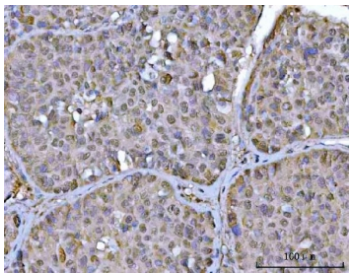
IHC staining of FFPE mouse brain tissue with PSMD4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



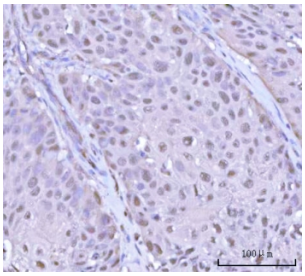
IHC staining of FFPE human lung adenocarcinoma tissue with PSMD4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



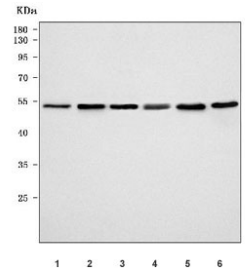
IHC staining of FFPE human lung cancer tissue with PSMD4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



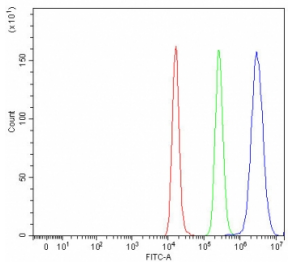
IHC staining of FFPE human liver cancer tissue with PSMD4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



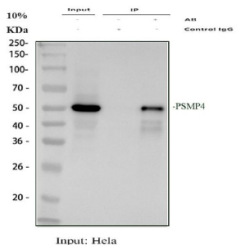
IHC staining of FFPE human urothelial carcinoma tissue with PSMD4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.




Western blot testing of 1) human Jurkat, 2) human K562, 3) human HeLa, 4) human Raji, 5) rat C6 and 6) mouse RAW264.7 cell lysate with PSMD4 antibody. Predicted molecular weight ~41 kDa, routinely observed at ~50 kDa.




Flow cytometry testing of fixed and permeabilized human Raji cells with PSMD4 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= PSMD4 antibody.




Immunoprecipitation of PSMD4 protein from 500ug of human HeLa whole cell lysate with 2ug of PSMD4 antibody.

## Description

PSMD4, also known as ASF1 or 26S proteasome non-ATPase regulatory subunit 4, is a component of the 19S regulatory particle of the 26S proteasome complex. The proteasome is essential for targeted degradation of ubiquitinated proteins, a process that regulates protein turnover, maintains cellular homeostasis, and governs diverse signaling pathways. PSMD4 functions as a ubiquitin receptor within the regulatory particle, binding ubiquitinated substrates and directing them toward proteasomal degradation. A PSMD4 antibody is widely used to study protein quality control and ubiquitin-proteasome system regulation.

Through its role as a ubiquitin-binding subunit, PSMD4 is critical for recognizing polyubiquitinated proteins destined for

degradation. This activity ensures proper recycling of cellular proteins and regulates the abundance of key regulators involved in cell cycle progression, transcription, and apoptosis. Dysregulation of PSMD4 or proteasome activity has been associated with cancer, neurodegeneration, and immune system disorders. Employing a PSMD4 antibody allows researchers to investigate how disruptions in proteasomal function contribute to these conditions.

PSMD4 has also been implicated in cellular stress responses and antigen processing, highlighting its role in both normal physiology and disease. Because of its involvement in pathways commonly dysregulated in tumors, PSMD4 is under investigation as a potential therapeutic target. Using a PSMD4 antibody in applications such as western blot, immunoprecipitation, and immunohistochemistry provides a reliable method for tracking expression and activity in experimental systems.

NSJ Bioreagents provides a high-quality PSMD4 antibody validated for multiple research applications. Selecting a PSMD4 antibody from NSJ Bioreagents ensures reproducibility and accuracy in studies focused on protein degradation, ubiquitin signaling, and disease biology.

## Application Notes

Optimal dilution of the PSMD4 antibody should be determined by the researcher.

## Immunogen

E. coli-derived recombinant human protein (amino acids M1-E322) was used as the immunogen for the PSMD4 antibody.

## Storage

After reconstitution, the PSMD4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.


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