Datasheet for ABIN968402

anti-PSME3 antibody (AA 45-147)

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Overview

Quantity:	50 µg
Target:	PSME3
Binding Specificity:	AA 45-147
Reactivity:	Human, Rat, Mouse, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PSME3 antibody is un-conjugated
Application:	Western Blotting (WB), BioImaging (BI)

Product Details

Immunogen:	Mouse Psme3/PA28-gamma aa. 45-147
Clone:	47-Psme3
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus), Dog (Canine), Human
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. This antibody has been developed and certified for the bioimaging application. However, a routine bioimaging test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive

Product Details

	deposits in plumbing. 5. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 6. Triton is a trademark of the Dow Chemical Company.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	PSME3
Alternative Name:	Psme3 (PSME3 Products)
Background:	The 20S proteasome is the major constituent of the proteasomal complex that mediates degradation events, including the generation of antigenic peptides that interact with MHC class I. The 20S proteasome is a cylindrical shaped complex composed of four layers of rings, each with seven subunits. The inner rings contain alpha-subunits, while the outer rings contain beta-catalytic subunits. The constituents of the PA28 activator complex are additional subunits with specialized roles in class I-mediated antigen presentation. PA28 is a ring-shaped structure with alternating alpha- and beta-subunits. This complex binds the alpha-rings of 20S and stimulates its activity. Expression of the PA28 alpha- and beta-subunits is strongly induced by IFN-gamma. The protein product of the Psme3 gene, also known as the Ki antigen, is highly homologous to the PA28 alpha- and beta-subunits and has been designated the PA28 gamma-subunit. This protein forms a homohexamer that binds the 20S proteasome and is thought to modulate proteasome activity. The PA28 alpha- and beta-subunits are located in the cytoplasm and in the nucleus, while the gamma-subunit is almost exclusively nuclear. Synonyms: PA28-gamma
Molecular Weight:	36 kDa
Pathways:	Mitotic G1-G1/S Phases, DNA Replication, Positive Regulation of Endopeptidase Activity, Hepatitis C, Synthesis of DNA

Application Details

Application Notes:	Bioimaging 1. Seed the cells in appropriate culture medium at ~10,000 cells per well in an 96-well Imaging Plate and culture overnight. 2. Remove the culture medium from the wells, and fix the cells by adding 100 myl of Fixation Buffer to each well. Incubate for 10 minutes at room temperature (RT).

Application Details

	3. Remove the fixative from the wells, and permeabilize the cells using either 90% methanol, or Triton™ X-100: a. Add 100 myl of -20°C 90% methanol to each well and incubate for 5 minutes at RT. OR b. Add 100 myl of 0.1% Triton™ X-100 to each well and incubate for 5 minutes at RT. 4. Remove the permeabilization buffer, and wash the wells twice with 100 myl of 1× PBS. 5. Remove the PBS, and block the cells by adding 100 myl of to each well. Incubate for 30 minutes at RT. 6. Remove the blocking buffer and add 50 myl of the optimally titrated primary antibody (diluted in Stain Buffer) to each well, and incubate for 1 hour at RT. 7. Remove the primary antibody, and wash the wells three times with 100 myl of 1× PBS. 8. Remove the PBS, and add the second step reagent at its optimally titrated concentration in 50 myl to each well, and incubate in the dark for 1 hour at RT. 9. Remove the second step reagent, and wash the wells three times with 100 myl of 1× PBS. 10. Remove the PBS, and counter-stain the nuclei by adding 200 myl per well of 2 myg/ml Hoechst 33342 in 1× PBS to each well at least 15 minutes before imaging. 11. View and analyze the cells on an appropriate imaging instrument.
Comment:	Related Products: ABIN967389, ABIN968545
Restrictions:	For Research Use only

Handling

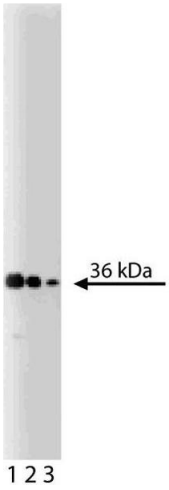
Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:	Kohda, Ishibashi, Shimbara, Tanaka, Matsuda, Kasahara et al.: "Characterization of the mouse PA28 activator complex gene family: complete organizations of the three member genes and a physical map of the approximately 150-kb region containing the alpha- and ..." in: **Journal of**

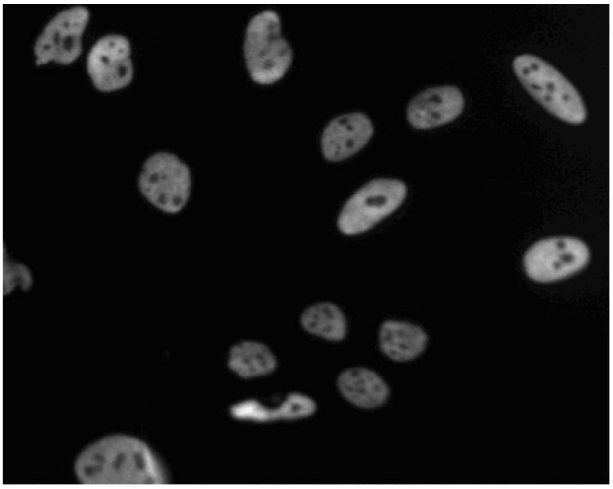
immunology (Baltimore, Md. : 1950), Vol. 160, Issue 10, pp. 4923-35, (1998) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of Psme3 on a rat cerebrum lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the Psme3 antibody.



Immunofluorescence

Image 2. Immunofluorescent staining of HeLa (ATCC CCL-2) cells. Cells were seeded in a 96 well imaging plate at ~ 10 000 cells per well. After overnight incubation, cells were stained using the alcohol perm protocol and the anti-Psme3/PA28-gamma antibody. The second step reagent was FITC goat anti mouse Ig. The image was taken on a BD Pathway™ 855 Bioimager using a 20x objective. This antibody also stained A549 (ATCC CCL-185) and U-2 OS (ATCC HTB-96) cells using both the Triton™ X-100 and alcohol perm protocols.

Image 3.