
Product Name: KD-Validated Proteasome Activator Subunit 1 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00915**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 28.7kDa

Antigen Information

Gene Name	PSME1 Proteasome Activator Subunit 1; PA28alpha; IFI5111; Proteasome (Prosome, Macropain) Activator Subunit 1 (PA28 Alpha); Activator Of Multicatalytic Protease Subunit 1; Interferon Gamma Up-Regulated I-5111 Protein; Proteasome Activator Complex Subunit 1; 11S
Alternative Names	Regulator Complex Subunit Alpha; IGUP I-5111; Epididymis Secretory Sperm Binding Protein Li 129m; Interferon-Gamma-Inducible Protein 5111; Proteasome Activator 28 Subunit Alpha; Interferon-Gamma IEF SSP 5111; 29-KD MCP Activator Subunit; HEL-S-129m; REG-Alpha; REGalpha; PA28A; PA28a
Gene ID	5720.0
SwissProt ID	Q06323

Immunogen

A synthesized peptide derived from human PSME1

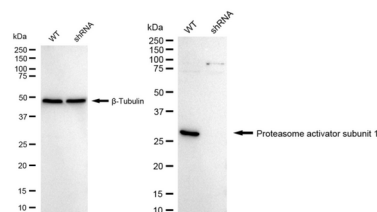
Background

The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. The immunoproteasome contains an alternate regulator, referred to as the 11S regulator or PA28, that replaces the 19S regulator. Three subunits (alpha, beta and gamma) of the 11S regulator have been identified. This gene encodes the alpha subunit of the 11S regulator, one of the two 11S subunits that is induced by gamma-interferon. Three alpha and three beta subunits combine to form a heterohexameric ring. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

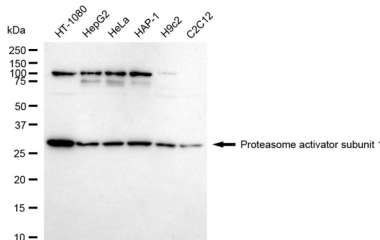
Research Area

Cell Biology, Microbiology

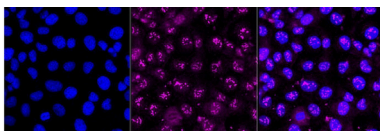
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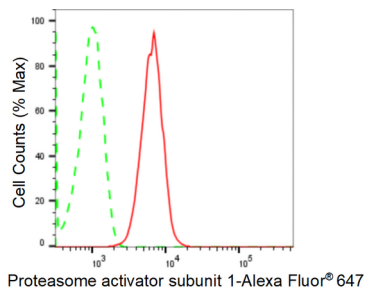
Western blotting analysis using Proteasome activator subunit 1 antibody (KdAb00915). Proteasome activator subunit 1 expression in wild type (WT) and Proteasome activator subunit 1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with Proteasome activator subunit 1 antibody (KdAb00915, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Proteasome activator subunit 1 antibody (KdAb00915). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Proteasome activator subunit 1 antibody (KdAb00915, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HT-1080 cells with Proteasome activator subunit 1 antibody (KdAb00915, 1:1,000). Nuclei were stained blue with DAPI; Proteasome activator subunit 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Flow cytometric analysis of Proteasome activator subunit 1 expression in HT-1080 cells using Proteasome activator subunit 1 antibody (KVA00915, 1:2,000). Green, isotype control; red, Proteasome activator subunit 1.