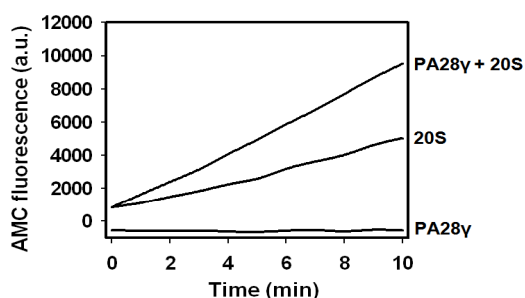
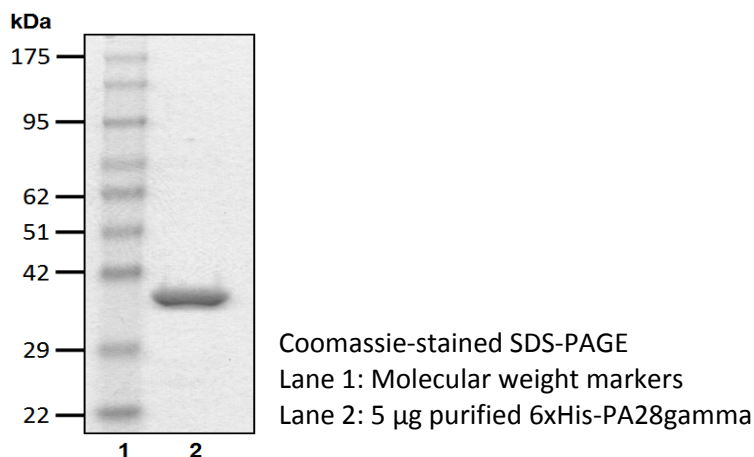


6xHis-PA28gamma

Cat. # A2300, A2301

Also Known as:	PSME3;Ki; PA28G; REG-GAMMA; PA28-gamma;PA28gamma;PA28 gamma
NCBI Reference:	NM_176863
MW (no tag):	29.5 kDa
Species:	Human
Source:	Bacterial recombinant
Tag:	6xHis
Stock Buffer:	20 mM Tris, 150 mM NaCl, 2 mM β ME, 10% Glycerol
Concentration:	See tube label
Quality Assurance:	~95% by SDS-PAGE

Image



Activation of 5 nM 20S proteasome (Cat. # A1400) by 25 nM PA28 γ (Cat. # A2300), the proteasome activity was assayed by using 50 μ M Suc-LLVY-AMC (Cat. # G1100) as the substrate. The AMC fluorescence was monitored by a plate reader with excitation and emission filters of 360 $\pm$ 40 nm and 460 $\pm$ 30 nm, respectively.

Description: PA28 (also called the 11S regulatory complex) is another activator of the 20S proteasome, which assembles on either one or both ends of the 20S proteasome in an ATP-independent manner. PA28 can greatly enhance the peptidase activities of the 20S proteasome, but not for degradation of ubiquitinated proteins. The PA28 activator is a complex of two alternating homologous subunits, PA28 α and PA28 β , which assembles as a hexameric ring with an $\alpha\beta\beta\alpha\beta\alpha$ stoichiometry. PA28 α and PA28 β are induced by interferon. Functionally, PA28 enhances the generation of class I peptides for antigen presentation. The third subunit, PA28 γ , was recently identified in the nucleus. Recombinant PA28 α and PA28 β form a heptomeric ring; whereas PA28 γ forms a hexameric ring. All of them can stimulate the peptidase activities of the 20S proteasome.

Storage: Store at -80°C; avoid multiple freeze-thaw cycles

Note: N/A

Literature:

1. Ma CP, *et al.* (1992) J Biol Chem 267(15), 10515 – 10523.
2. Whitby FG, *et al.* (2000) Nature 408(6808), 115 – 120.
3. Zhang Z, *et al.* (2008) EMBO J 27(6), 852 – 864.