

**MATERIAL DATA SHEET****His<sub>6</sub>-PA28 Activator  $\beta$  subunit, *human recombinant*  
Cat. # E-382**

PA28 is a ring-shaped 11S multimeric complex that can bind to the two ends of the 20S proteasome and dramatically stimulates its capacity to hydrolyze small peptides (but not ubiquitinated proteins or large substrates). It functions in immuno-proteasome assembly, is required for antigen processing, and enhances the generation of class I peptides. In mammals, PA28 is composed of two homologous subunits; PA28 $\alpha$  and PA28 $\beta$ , both of which are interferon-induced. This protein has been purified from *E.coli*.

**Product Information**

<b>Quantity:</b>	100 $\mu$ g
<b>Stock:</b>	X mg/ml (X $\mu$ M) in 50 mM HEPES pH 8.0, 200 mM NaCl, 1mM DTT. Concentration varies with lot number.
<b>MW:</b>	180 kDa
<b>Purity:</b>	> 95% by SDS-PAGE

**Use & Storage**

<b>Use:</b>	For activation of proteasome activity, use PA28 at 5- to 15-fold molar excess to activate latent 20S. Exact concentrations will vary depending on conditions.
<b>Storage:</b>	Store at -80 $^{\circ}$ C. Avoid multiple freeze/thaw cycles.

**Literature**

<b>References:</b>	Cascio P., <i>et al.</i> (2002) <u>EMBO. J.</u> <b>21</b> :2636-2645 Knowlton J.R., <i>et al.</i> (1997) <u>Nature.</u> <b>390</b> :639-643 Ma C.P., <i>et al.</i> (1992) <u>J. Biol. Chem.</u> <b>267</b> :10515-10523 Mott J.D., <i>et al.</i> (1994) <u>J. Biol. Chem.</u> <b>269</b> :31466-31471 Realini C., <i>et al.</i> (1994) <u>J. Biol. Chem.</u> <b>269</b> :20727-20732 Reichsteiner M., <i>et al.</i> (2000) <u>Biochem. J.</u> <b>345</b> :1-15 Song X., <i>et al.</i> (1996) <u>J. Biol. Chem.</u> <b>271</b> :26410-26417 Whitby F.G., <i>et al.</i> (2000) <u>Nature.</u> <b>408</b> :115-120
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