Lot # XXXXX

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MATERIAL DATA SHEET

PA28 Activator gamma Subunit, *human recombinant*
Cat. # E-384

The Proteasome Activator 28 (PA28) Regulatory Complex, also known as the 11S Regulatory (REG) Complex, is a ring-shaped, multimeric, ATP-independent regulatory complex that can bind to one or both ends of the 20S Proteasome or 20S Immunoproteasome. The PA28 Regulatory Complex stimulates the proteasome to hydrolyze small peptides, but not ubiquitinated proteins. Three PA28 Regulatory Complex subunits, alpha, beta, and gamma, have been identified and can oligomerize to form the PA28 Regulatory Complex. While the expression of the PA28 alpha and beta subunits are induced by IFN-gamma, the PA28 gamma subunit is not significantly affected. The human PA28 Activator gamma Subunit is a 254 amino acid (aa) member of the PA28 family of regulatory proteins with a predicted molecular weight of 29 kDa. The mouse and rat orthologs share 100% aa sequence identity with human PA28 gamma. Two isoforms of PA28 gamma have been identified. Six PA28 gamma subunits combine to form a homo-hexameric ring-shaped PA28 Regulatory Complex. Unlike PA28 Regulatory Complexes composed of PA28 alpha subunits or PA28 alpha/beta subunits, regulatory complexes composed of PA28 gamma have narrow substrate specificity and have been shown to cleave only a few biologically relevant protein substrates including SRC-3, p21/CIP1/CDKN1A, and MafA. PA28 gamma is involved in cell cycle progression and in T cell-restricted MHC class I presentation of select antigens.

Product Information	
Quantity:	100 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 500 mM NaCl, 0.1 mM EDTA, 1mM TCEP
MW:	180 kDa
Purity:	> 95% by SDS-PAGE

Use & Storage	
Use:	PA28 Activator γ subunit is ideal for the activation of latent 20S Proteasome complexes. Reaction conditions will need to be optimized for each specific application.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:

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