

**MATERIAL DATA SHEET****20S Proteasome, human****Cat. # E-360**

The 20S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. This multi-subunit complex selectively degrades intracellular proteins. The 20S catalytic 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. This activity degrades a variety of peptide substrates and poly-ubiquitinated proteins with broad specificity in non-ATP dependent process. The 20S proteasome can be activated chemically by the addition of detergent or by the proteinaceous activator PA28. This protein has been purified from human erythrocytes, which has been screened and is negative for hepatitis B surface antigen, antibodies to hepatitis C virus, HIV type 1 antigens and antibodies to HIV type 1 and 2

**Product Information**

<b>Quantity:</b>	50 µg
<b>Stock:</b>	X mg/ml (X µM) in 50 mM HEPES pH 7.6, 100mM NaCl, 1mM DTT. Actual concentration will vary with specific Lot #.
<b>MW:</b>	700 kDa
<b>Purity:</b>	> 95% by SDS-PAGE

**Use & Storage**

<b>Use:</b>	Typical enzyme concentration for assay is 0.1-1 nM. 20S can be activated by SDS (0.035%) or with PA28 Activator (Cat. # E-350).
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

**Literature**

<b>References:</b>	Coux O. (1996) <u>Ann. Rev. Biochem.</u> <b>65</b> :801-847 McCormack T.A., <i>et al.</i> (1998) <u>Biochem.</u> <b>37</b> :7792-7800 Ganoth D., <i>et al.</i> (1988) <u>J. Biol. Chem.</u> <b>263</b> :12412-12419 Hartman-Peterson R., <i>et al.</i> (2003) <u>Tren. Biochem. Sci.</u> <b>28</b> :26-31 Rechsteiner M., <i>et al.</i> (1993) <u>J. Biol. Chem.</u> <b>268</b> :6065-6068 Waxman L., <i>et al.</i> (1987) <u>J. Biol. Chem.</u> <b>262</b> :2451-2457 Voges D., <i>et al.</i> (1999) <u>Ann. Rev. Biochem.</u> <b>68</b> :1015-1068
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