

**MATERIAL DATA SHEET****20S Proteasome, canine****Cat. # E-358**

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 product has been purified from canine erythrocytes.

**Product Information**

<b>Quantity:</b>	X µg
<b>Stock:</b>	X mg/ml in 50 mM HEPES pH 7.6, 150mM 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 (Cat. # E-380).
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

**Literature**

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