UBPBio
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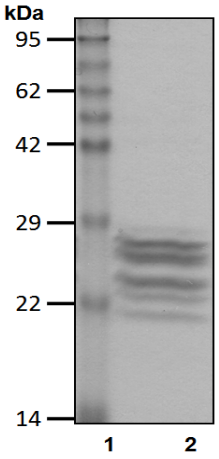
Bovine 20S proteasome

Cat. # A1400, A1401

Also Known as: 26S proteasome
NCBI Reference: N/A
MW (no tag): 700 kDa
Species: Bovine
Source: Bovine red blood cells
Tag: No
Stock Buffer: 20 mM Tris, 20 mM NaCl, 1 mM EDTA, 5 mM βME, 10% Glycerol
Concentration: See tube label
Quality Assurance: ~95% by native-PAGE

Image



Coomassie-stained SDS-PAGE
Lane 1: Molecular weight markers
Lane 2: 5 µg purified Bovine 20S proteasome

Coomassie-stained native-PAGE
Lane 1: 5 µg purified Bovine 20S proteasome

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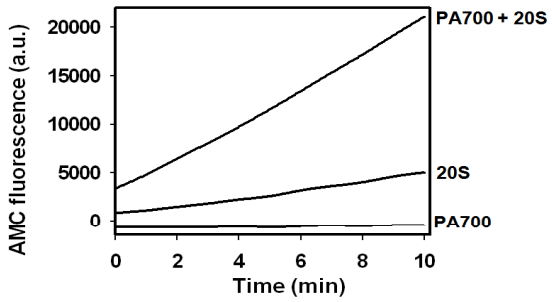
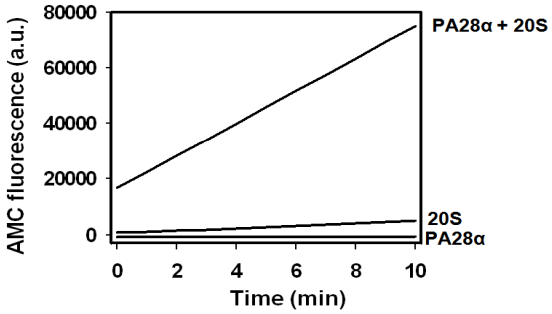
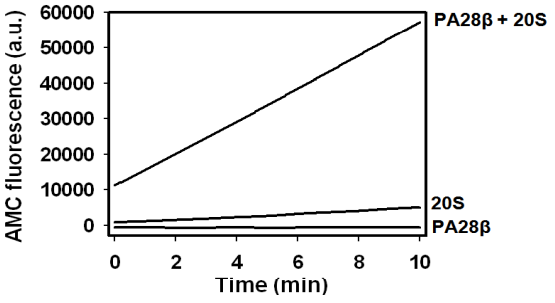


Activation of 5 nM 20S proteasome (Cat. # A1400) by 25 nM PA700 (Cat. # A1300), the proteasome activity was assayed by using 50 μM Suc-LLVY-AMC (Cat. # G1100) as the substrate. The AMC fluorescence was monitored by a plate reader with excitation and emission filters of 360±40 nm and 460±30 nm, respectively.



Activation of 5 nM 20S proteasome (Cat. # A1400) by 25 nM PA28α (Cat. # A2100), the proteasome activity was assayed by using 50 μM Suc-LLVY-AMC (Cat. # G1100) as the substrate. The AMC fluorescence was monitored by a plate reader with excitation and emission filters of 360±40 nm and 460±30 nm, respectively.



Activation of 5 nM 20S proteasome (Cat. # A1400) by 25 nM PA28β (Cat. # A2200), the proteasome activity was assayed by using 50 μM Suc-LLVY-AMC (Cat. # G1100) as the substrate. The AMC fluorescence was monitored by a plate reader with excitation and emission filters of 360±40 nm and 460±30 nm, respectively.

Description: The 20S proteasome has a barrel – shaped structure arranged as four heptomeric rings of αββα. In eukaryotes, each of α and β ring is composed of seven different proteins. The β1, β2 and β5 subunits have 'caspase-like', 'trypsin-like' and 'chymotypsin-like' activities, respectively. In 26S proteasome-mediated protein degradation, to entry the β chamber of the 20S proteasome that houses the proteolytic sites, a substrate protein has to pass through a substrate translocation channel consisting of the double-ring formed by six ATPases of PA700 and the α chamber formed by α subunits of the 20S proteasome.

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

Note: N/A

Literature:

1. Waxman L, *et al* . (1987) J Biol Chem 262(6), 2451 – 2457.
2. Ganoth D, *et al* . (1988) J Biol Chem 263(25), 12412 – 12419.
3. Coux O, *et al* . (1996) Annu Rev Biochem 65, 801 – 847.
4. Kim HM, *et al* . (2011) Biochimica Biophysica Acta 1809(2), 67 – 79.