

BM2135**Monoclonal Antibody to 26S Proteasome (p32 subunit) - Supernatant**

Alternate names:	Proteasome26S
Quantity:	5 ml
Background:	The 26S proteasome is an ATP-dependent, multisubunit (~31), barrel-shaped molecular machine with an apparent molecular weight of ~2.5 MDa. It consists of a 20S proteolytic core complex which is crowned at one or both ends by 19S regulatory subunit complexes. The 19S regulatory subunits recognize ubiquitinated proteins and play an essential role in unfolding and translocating targets into the lumen of the 20S subunit. An enzymatic cascade is responsible for the attachment of multiple ubiquitin molecules to lysine residues of proteins targeted for degradation. Several genetic diseases are associated with defects in the ubiquitin-proteasome pathway. Some examples of affected proteins include those linked to cystic fibrosis, Angelman's syndrome, and Liddle syndrome.
Host / Isotype:	Mouse / IgG1
Clone:	p32(26S-161)
Immunogen:	26S complexes of <i>Xenopus laevis</i> oocytes.
Format:	State: Liquid Tissue Culture Supernatant containing 0.09% Sodium Azide as preservative
Applications:	Western Blot: 1/1000 for Immunoblotting when using the ECL method. Immunofluorescence Microscopy: Ready-to-use. <i>Incubation Time:</i> 20-30 min at RT (longer incubation may result in loss of soluble antigen). P32 (26S-161) is not suitable for Immunoprecipitation . This Clone antibody has been reported to work in Immunohistochemistry on Frozen Sections (See Reference 4. for more details). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Recognizes the 20S subcomplex within the 26S heterooligomeric protein complex and the free cytosolic form of 20S cylinder particles. The epitope is resistant to formaldehyde fixation (up to 4%). Antigen Recognized in Species and Cultured Cell Lines (tested so far): <i>Xenopus laevis</i> , Human; XLKE-A6 (<i>Xenopus</i>) PLC, MCF-7, A431, CaCo (Human); 3T3 (Mouse); RV (Rat); Ptk2 (Rat kangaroo).
Storage:	Store the antibody undiluted at 2-8°C. Shelf life: one year from despatch.
General Readings:	1. Peters JM, Franke WW, Kleinschmidt JA. Distinct 19 S and 20 S subcomplexes of the 26 S proteasome and their distribution in the nucleus and the cytoplasm. <i>J Biol Chem.</i> 1994 Mar 11;269(10):7709-18. PubMed PMID: 8125997. 2. J.-M. Peters: Proteasomes: protein degradation machines of the cell. <i>TIBS</i> 19,

September 1994.

3. Peters, J.M., Cejka, Z., Harris, J.R., Kleinschmidt, J.A. and Baumeister, W.: Structural Features of the 26 S Proteasome Complex. *J. Mol. Biol.* 234, 932-937 (1993).

4. Smith L, Qutob O, Watson MB, Beavis AW, Potts D, Welham KJ, et al. Proteomic identification of putative biomarkers of radiotherapy resistance: a possible role for the 26S proteasome? *Neoplasia*. 2009 Nov;11(11):1194-207. PubMed PMID: 19881955.

5. Xu J, Wu Y, Song P, Zhang M, Wang S, Zou MH. Proteasome-dependent degradation of guanosine 5'-triphosphate cyclohydrolase I causes tetrahydrobiopterin deficiency in diabetes mellitus. *Circulation*. 2007 Aug 21;116(8):944-53. Epub 2007 Aug 6. PubMed PMID: 17679617.