

## Product datasheet

# Anti-Proteasome 20S alpha + beta antibody ab22673

★★★★★ [7 Abreviews](#) [36 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Anti-Proteasome 20S alpha + beta antibody
<b>Description</b>	Rabbit polyclonal to Proteasome 20S alpha + beta
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IP, WB, IHC-Fr, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human, Saccharomyces cerevisiae
<b>Immunogen</b>	Tissue/ cell preparation: Proteasomal preparation isolated from human red blood cells.
<b>General notes</b>	<p>Dilute to working concentration in PBS pH 7.2- 7.4, and store at 2 to 4°C (do not freeze). Use diluted antibody within 1 month.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.065% Sodium azide Constituent: PBS
<b>Purity</b>	Whole antiserum
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

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**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab22673 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB	★★★★★ (2)	1/1000.
IHC-Fr	★★★★☆ (1)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (4)	Use at an assay dependent concentration. See Abreview. PubMed: 23840376

## Target

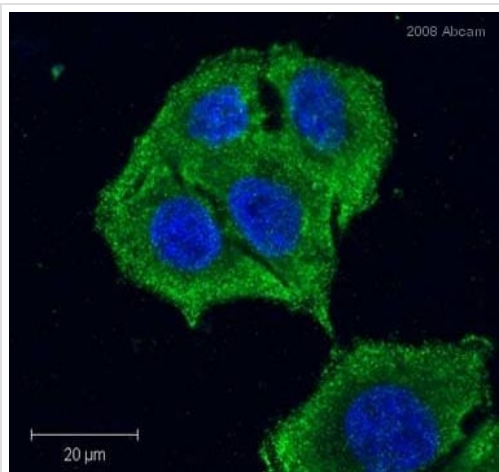
### Relevance

The proteasome is widely recognised as the central enzyme of non lysosomal protein degradation. It is responsible for intracellular protein turnover and it is also critically involved in many regulatory processes and, in higher eukaryotes, in antigen processing. The 26S proteasome is the key enzyme of the ubiquitin/ATP dependent pathway of protein degradation. The catalytic core of this unusually large (2000 kDa, 450Å in length) complex is formed by the 20S proteasome, a barrel shaped structure shown by electron microscopy to comprise of four rings each containing seven subunits. Based on sequence similarity, all fourteen 20S proteasomal subunit sequences may be classified into two groups, alpha and beta, each group having distinct structural and functional roles. The alpha subunits comprise the outer rings and the beta subunits the inner rings of the 20S proteasome. Observations of the eukaryotic proteasome and analysis of subunit sequences indicate that each ring contains seven different subunits (alpha7 beta7 beta7 alpha7) with a member of each sub family represented in each particle. Each subunit is located in a unique position within the alpha or beta rings. 20S Proteasomes degrade only unfolded proteins in an energy independent manner, whereas 26S proteasomes degrade native and ubiquitylated proteins in an ATP dependent manner. The native protein substrates are recognised by subunits, some with ATP binding sites, of the outer 19S caps of the 26S proteasome.

### Cellular localization

Cytoplasmic and Nuclear.

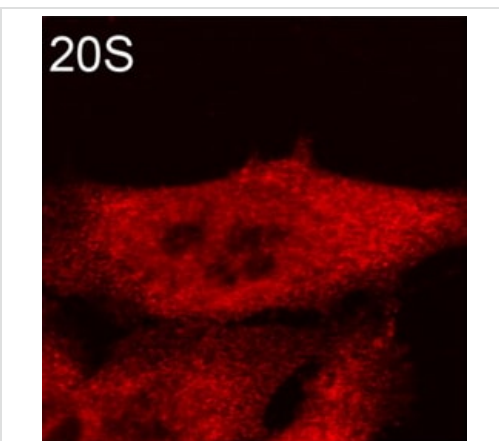
## Images



Immunocytochemistry/ Immunofluorescence - Anti-Proteasome 20S alpha + beta antibody (ab22673)

This image is courtesy of an anonymous abreview.

ab22673 staining human HeLa cells by ICC/IF. Cells were formaldehyde fixed, permeabilized in 0.1% Triton and blocked in 3% BSA for 15 minutes at room temperature. The primary antibody was diluted 1/2000 (3% BSA) and incubated with sample for 1 hour. An Alexa Fluor® 488 conjugated goat polyclonal to rabbit, diluted 1/1000 was used as secondary.



Immunocytochemistry/ Immunofluorescence - Anti-Proteasome 20S alpha + beta antibody (ab22673)

Image from Anderson DD et al., J Biol Chem. 2012 Feb 10;287(7):4790-9. Epub 2011 Dec 21. Fig 5.; doi: 10.1074/jbc.M111.302174; February 10, 2012 The Journal of Biological Chemistry, 287, 4790-4799.

Immunofluorescence analysis of HeLa cells, staining Proteasome 20S alpha + beta with ab22673.

Cells were fixed with formaldehyde and permeabilized using 0.1% Triton X-100. Samples were incubated with primary antibody (1/1000) for 1 hour at room temperature. An AlexaFluor®555-conjugated donkey anti-rabbit IgG was used as the secondary antibody.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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