

Anti 20S proteasome (GC3β)

BACKGROUND

The 26S proteasome is an essential component of the ubiquitin-proteolytic pathway in eukaryotic cells and is responsible for the degradation of most cellular proteins. It is composed of a 20S proteasome as a catalytic core and regulatory particles at either end. The subunits of the 20S proteasome can be classified into two families, α and β . In eukaryotes, the 20S proteasome contains seven α -type subunits and seven β -type subunits. The fourteen subunits are arranged in four rings of seven and form an $\alpha 7\beta 7\beta 7\alpha 7$ structure.

This antibody recognizes **$\alpha 4$ subunit of the 20S proteasome** from all organisms tested, yeast to human. The advance of this antibody is application for immuno-electron microscopy.

Product type	Primary antibody
Immunogen	Purified 20S proteasome purified from goldfish ovary
Based in	Mouse (BALB/c)
Myeloma	P3-U1
Clone number	GC3β
Isotype	IgG2a
Source	Serum free culture supernatant
Purification	Affinity purified by Protein G
Buffer	PBS containing 0.02% NaN_3 as a preservative
Concentration	1 mg / mL
Volume	100 μL
Label	Unlabeled
Specificity	$\alpha 4$ subunit of the 20S proteasome
Cross reactivity	fish, frog, rat, human, plants
Storage	Store below 4°C. (below -70°C for prolonged storage). Aliquot to avoid cycles of freeze/thaw.
Other	Data Link: UniProtKB/Swiss-Plot Q9PTW9

Application notes Recommended dilutions

- **Western blotting:** 1/1000 - 1/2000 (Ref.1, Fig.1)(Ref.2, Fig. 1)

Other applications have not been tested.

Optimal dilutions/concentrations should be determined by the end user.

References

- 1) Tokumoto, M., Horiguchi, R., Nagahama, Y., Tokumoto, T. 1999. Identification of the Xenopus 20S proteasome $\alpha 4$ subunit which is modified in the meiotic cell cycle. Gene 239, 301-308. PubMed: [10548731](#)
- 2) Tokumoto, M., Horiguchi, R., Nagahama, Y., Ishikawa, K., Tokumoto, T. 2000. Two proteins, a goldfish 20S proteasome subunit and the protein interacting with 26S proteasome, change in the meiotic cell cycle. Eur J Biochem 267, 97-103. PubMed: [10601855](#)

ANTIBODY CHARACTERIZATION

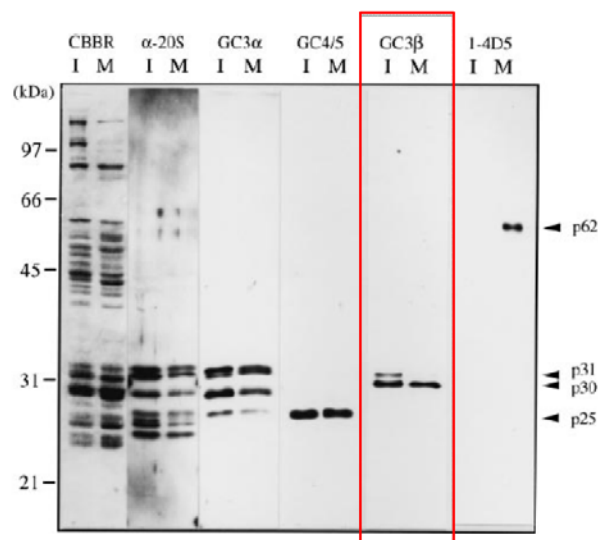


Figure 1 Immunoblotting of the purified 26S proteasomes.

26S proteasomes were electrophoresed under denaturing conditions (12.0% gel) and stained with Coomassie Brilliant Blue (CBBR), or immunostained with antibodies (α -20S, anti-Xenopus 20S proteasome polyclonal antibody; GC3 α ; GC4/5; **GC3 β** ; or 1-4D5) after electroblotting.

Lanes I and M indicate 26S proteasomes from immature and mature oocytes, respectively. Protein bands that cross-reacted with GC4/5 (p25), GC3 β (p30 and p31) and 1-4D5 (p62) are indicated. Molecular masses of standard proteins are indicated on the left. Reference : Eur J Biochem. 2000 Jan;267(1)97-103.

RELATED PRODUCTS:

Product Name	Quantity	Maker	Cat#
Anti 20S proteasome (GC3 α) Monoclonal Antibody	100 ug	CAC	SU-PS-M01
Anti 20S proteasome (GC3 β) Monoclonal Antibody	100 ug	CAC	SU-PS-M01
Anti 20S proteasome (GC4/5) Monoclonal Antibody	100 ug	CAC	SU-PS-M01
Anti Multiubiquitin, Chain (FK1) Monoclonal Antibody	0.5 MG	NBT	MFK-001
Anti Multiubiquitin, Chain (FK1) Monoclonal Antibody	1 MG	NBT	MFK-002
Anti Multiubiquitin, Chain (FK2) Monoclonal Antibody	0.5 MG	NBT	MFK-003
Anti Multiubiquitin, Chain (FK2) Monoclonal Antibody	1 MG	NBT	MFK-004
Anti SUMO1 (4D12) Monoclonal Antibody	100 ug	CAC	CE-041A
Anti SUMO2 and SUMO3 (3H12) Monoclonal Antibody	100 ug	CAC	CE-042A

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