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Inspiration for Life Science

MONOCLONAL ANTIBODY

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Catalog SZU-PS-M02

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 α7β7β7α7 structure.
This antibody recognizes **α4 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
Rased 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 uL
Label	Unlabeled
Specificity	α4 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 alpha4 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

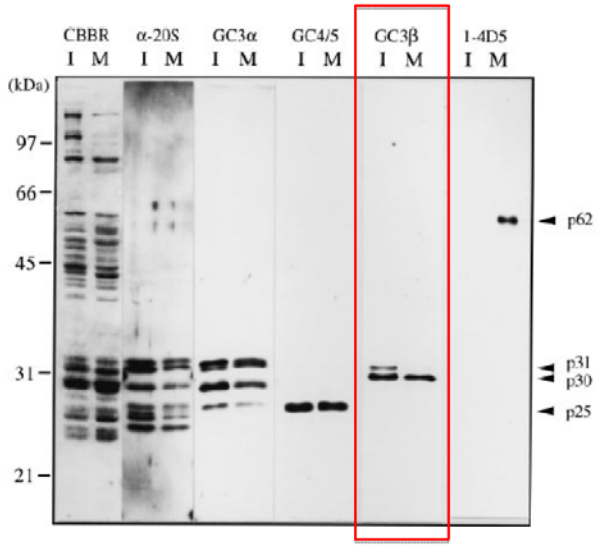

Figure 1 Immunoblotting of the purified 26S proteasomes.

26S proteasomes were electrophoresed under denaturing conditions (12.0% gel) and stained with Coomassie Brilliant Blue (CBBR), or immunostained with antibodies (a-20S, anti-Xenopus 20S proteasome polyclonal antibody; GC3α; GC4/5; **GC3β**; 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), GC3β(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 (GC3α) Monoclonal Antibody	100 ug	CAC	SU-PS-M01
Anti 20S proteasome (GC3β) 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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