Ubiquitin monoclonal antibody (P4D1)

Ubiquitin modification of cellular proteins has been shown to be involved with a wide range of biochemical processes including proteasomal degradation, signal transduction, DNA repair, endocytosis and autophagy.

This antibody is covered by our Worry-Free Guarantee.

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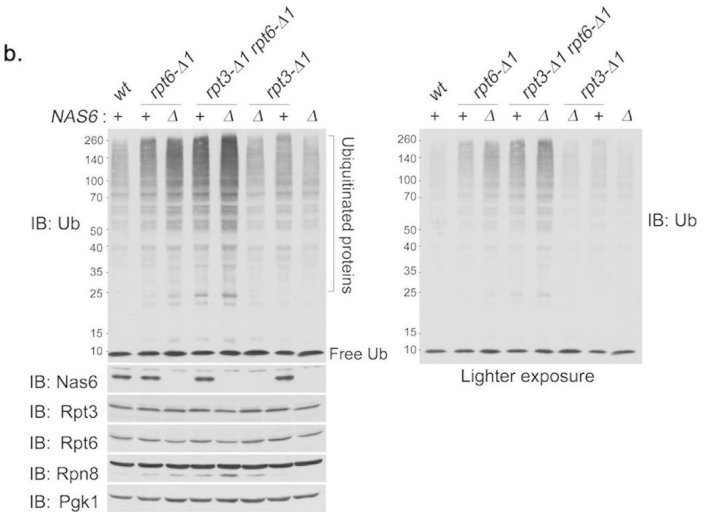
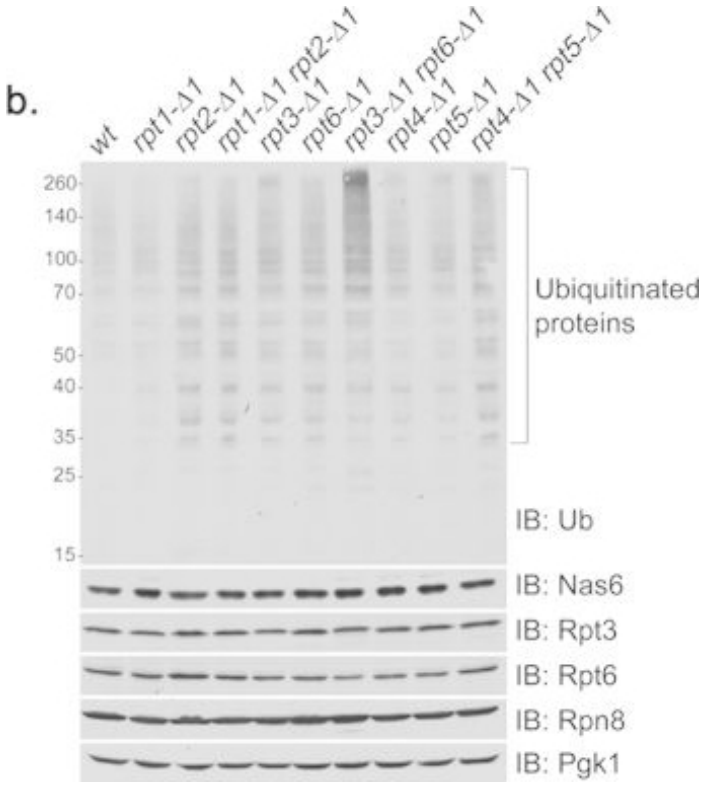
BML-PW0930-1000	1mg
BML-PW0930-0100	100µg

Manuals, SDS & CofA View Online »



The Rpt6 tail exhibits a distinct functional relationship with Nas6 in vivo.(a) Phenotypic analysis showing effect of nas6Δ on the growth of rpt6-Δ1 or rpt3-Δ1 single, or double mutants. Four-fold serial dilutions of indicated cells were spotted onto YPD plates, synthetic complete medium (SC), or SC medium containing canavanine (1 µg/ml), and incubated for 2–3 days at the indicated temperature. For testing sensitivity to canavanine (an arginine analog), arginine was omitted from the SC medium. (b) Effect of nas6Δ on the degradation of polyubiquitinated proteins in rpt6-Δ1 or rpt3-Δ1 single, or double mutant cells. The cells were cultured for 6 hours at 37 °C. Whole cell lysates (20 µg) were subjected to 10% Bis-Tris SDS-PAGE for immunoblotting (IB) of polyubiquitinated proteins, and 12% SDS-PAGE for immunoblotting of Nas6 and proteasome subunits. Rpt3 and Rpt6 are base subunits. Rpn8 is a lid subunit. Pgk1 serves as a loading control. Lighter exposure of anti-ubiquitin (Ub) immunoblot is shown at right to further illustrate the difference in polyubiquitinated protein levels. Molecular weight markers are at left in kDa.



Together, the Rpt3 and Rpt6 tails play a central role in proteasome function.(a) Yeast growth assay showing severe heat sensitivity of rpt3-Δ1rpt6-Δ1 double mutant cells. Four-fold serial dilutions of indicated yeast strains were spotted onto YPD plates and grown for 2–3 days at 30 °C and 37 °C. Table 1 lists the yeast strains used in each figure henceforth. (b) Anti-ubiquitin immunoblots showing an accumulation of polyubiquitinated proteins in rpt3-Δ1rpt6-Δ1 cells. Levels of the Nas6 chaperone and proteasome subunits remained largely unchanged in all indicated strains. Whole cell lysates (20 µg) were subjected to 10% Bis-Tris SDS-PAGE for immunoblotting (IB) of polyubiquitinated proteins, and 12% Tris-Glycine SDS-PAGE (SDS-PAGE henceforth) for immunoblotting of Nas6 and proteasome subunits. Nas6 is a cognate chaperone of Rpt3. Rpt3 and Rpt6 are base subunits. Rpn8 is a lid subunit. Pgk1 serves as a loading control. Ub is ubiquitin. Molecular weight markers are at left in kDa.

Handling & Storage

Use/Stability	Stable for at least 1 year after receipt when stored at -20°C.
Handling	Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -20°C.
Short Term Storage	-20°C
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	IHC, IP, WB
Application Notes	Clone P4D1 has been reported to be of utility in immunoprecipitation, immunofluorescence and immunohistochemistry (see Brady et al. (2005); Wang et al. (2008); Ito et al. (2003) respectively).
Clone	P4D1
Formulation	Liquid. In PBS containing 0.01% sodium azide.
Host	Mouse
Immunogen	Denatured bovine ubiquitin.
Isotype	IgG1
Purity Detail	Protein G affinity purified form cell culture media.
Recommendation Dilutions/Conditions	Western Blot (1:1,000) Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from hybridoma tissue culture supernatant.
Species Reactivity	Species independent

Specificity	Recognizes mono- and poly-ubiquitin protein conjugates, free polyubiquitin chains and free ubiquitin.
Technical Info / Product Notes	The ubiquitin antibody BML-PW0930 (clone P4D1) was developed using a denatured glutaraldehyde cross-linked ubiquitin IgG complex as the immunogen. Monoclonal antibody was purified from tissue culture supernatant by ion exchange chromatography. The general ubiquitin reactivity of the monoclonal antibody has been demonstrated by Western blotting using synthetic ubiquitin chains, single isopeptide-linked polyubiquitin chains, and with endogenously ubiquitinylated species in cell lysates.
UniProt ID	P0CG53 (UBB), P0CH28 (UBC), P62992 (RPS27A), P63048 (UBA52)
Worry-free Guarantee	**This antibody is covered by our Worry-Free Guarantee .**

Last modified: May 29, 2024

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