

Datasheet for 200-401-431**Ubiquitin Antibody****Overview**

Description:	Anti-Ubiquitin (RABBIT) Antibody - 200-401-431
Item No.:	200-401-431
Size:	500 µg
Applications:	ELISA, WB
Reactivity:	Broad
Host Species:	Rabbit

Product Details

Background:	Ubiquitin (Ub) is a small, 76-residue, protein (8.5 kDa) found both as free monomer and covalently attached to itself and other proteins in eukaryotic cells. Free Ub is a very compact and stable molecule that is easily refolded after being denatured. It is therefore recommended that for detection of free Ub on Westerns, the Tris-Tricine SDS-PAGE is used and nitrocellulose filters are autoclaved after the transfer and before blocking and addition of anti-Ub antibodies. The C-terminus of ubiquitin forms an isopeptide bond with the ε-amino group of a lysine side chain in a target protein. In this way proteins can be covalently modified by the addition of ubiquitin which may alter the target protein's function. Monoubiquitination generally targets proteins for internalization, endocytosis and lysosomal degradation, or modifies the surface charge of histones and affects chromatin compaction. Conjugation of ubiquitin (Ub) involves a three-step mechanism whereby specific enzymes (or enzyme complexes) activate and covalently link Ub to their substrates.
Synonyms:	rabbit anti-Ubiquitin Antibody, FLJ25987 antibody, MGC8385 antibody, Polyubiquitin B antibody, RPS27A antibody, UBA52 antibody, UBA80 antibody, UBB antibody, UBC antibody, UBCEP1 antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	UBB
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Reactivity:	Broad
Immunogen Type:	Native Protein
Immunogen:	This purified antibody was prepared from rabbit serum after repeated immunizations with ubiquitin coupled to rabbit IgG using glutaraldehyde.
Purity/Specificity:	This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum.
Relevant Links:	• UniProtKB - P0CG47 • NCBI - NP_001268645.1 • GeneID - 7314

Application Details

Tested Applications:	ELISA, WB
Application Note:	This purified polyclonal antibody reacts with ubiquitin by ELISA and western blot. Although not tested, this antibody is likely functional in immunohistochemistry and immunoprecipitation. For detection of free Ub by western blotting use Tris-Tricine SDS-PAGE and autoclaved nitrocellulose filters after the transfer and before blocking and addition of anti-Ub antibodies. Details on western blotting procedures are found in Mimnaugh et al., (1999 and 2002).
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,000 - 1:5,000
IHC:	User Optimized
WB:	1:200 - 1:1000

Formulation

Physical State:	Lyophilized
Concentration:	5.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	100 μ L
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

Anti-Ubiquitin antibody, generated by immunization with Ubiquitin coupled to Rabbit IgG, was tested by western blot against total cell extract from yeast. Dilution of the antibody between 1:200 and 1:1,000 showed strong reactivity with Ubiquitinated proteins. In this blot the antibody was used at a 1:500 dilution incubated overnight at 4° C in 5% non-fat dry milk in TTBS. Detection occurred using a 1:2000 dilution of HRP-labeled Donkey anti-Rabbit IgG (code # 611-703-127) for 1 hour at room temperature. A chemi-luminescence system was used for signal detection (Roche). Other detection systems will yield similar results.

References

- Quasney C et al. Degradation of CaMKII is stimulated by its active conformation. *J Biol Chem.* (2025)

Disclaimer

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