# abcam

## Product datasheet

# Anti-Ubiquitin antibody [EPR8590] ab137025

Recombinant RabMAb

8 References 4 Images

Overview

**Immunogen** 

**Product name** Anti-Ubiquitin antibody [EPR8590]

**Description** Rabbit monoclonal [EPR8590] to Ubiquitin

**Host species** Rabbit

Specificity ab137025 recognizes Ubiquitin, polyubiquitin and ubiquitinated proteins.

**Tested applications** Suitable for: WB, IHC-P

Unsuitable for: IP

Species reactivity Reacts with: Mouse, Human

Predicted to work with: Rat

Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control Fetal brain, HepG2, Jurkat, and 293T cell lysates; Human breast carcinoma tissue

General notes This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity - Long-term security of supply - Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

**Properties** 

**Form** Liquid

Storage instructions Shipped at 4°C. Store at -20°C.

Storage buffer

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

**Purity** Protein A purified

Clonality Monoclonal

Clone number

EPR8590

Isotype

ΙgG

#### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab137025 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
WB		1/1000 - 1/10000. Predicted molecular weight: 9 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

#### **Application notes**

Is unsuitable for IP.

# Target

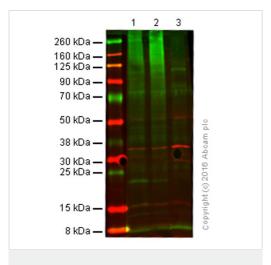
#### Relevance

Function: Ubiquitin exists either covalently attached to another protein, or free (unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or a linear polymer linked via the initiator Met of the ubiquitin (linear polyubiquitin chains). Polyubiquitin chains, when attached to a target protein, have different functions depending on the Lys residue of the ubiquitin that is linked: Lys-6-linked may be involved in DNA repair; Lys-11linked is involved in ERAD (endoplasmic reticulum-associated degradation) and in cell-cycle regulation; Lys-29-linked is involved in lysosomal degradation; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases, conjugation to Cys or Ser residues has been observed. When polyubiquitin is free (unanchored-polyubiquitin), it also has distinct roles, such as in activation of protein kinases, and in signaling. Similarity: Belongs to the ubiquitin family. Contains 3 ubiquitinlike domains.

#### Cellular localization

Cell Membrane, Cytoplasmic and Nuclear

#### **Images**



Western blot - Anti-Ubiquitin antibody [EPR8590] (ab137025)

**All lanes :** Anti-Ubiquitin antibody [EPR8590] (ab137025) at 1/200 dilution

Lane 1: MCF-7 cell lysate

Lane 2: MCF-7 Whole cell lysate + M132 (50 uM 90 min)

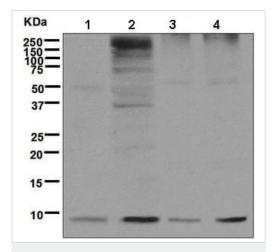
Lane 3: Mouse brain tissue lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 9 kDa

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a nitrocellulose membrane at 30V for 70 minutes. ab137025 and ab8245 (loading control to GAPDH) were diluted 1/200 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with goat anti-rabbit  $\lg G (H + L)$  and goat anti-mouse  $\lg G (H + L)$  secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging using the Licor Odyssey CLx.



Western blot - Anti-Ubiquitin antibody [EPR8590] (ab137025)

**All lanes :** Anti-Ubiquitin antibody [EPR8590] (ab137025) at 1/1000 dilution

Lane 1: Fetal brain cell lysate

Lane 2 : HepG2 cell lysate

Lane 3 : Jurkat cell lysate

Lane 4 : 293T cell lysate

Lysates/proteins at 10 µg per lane.

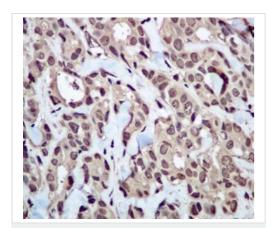
### Secondary

All lanes: HRP labelled goat anti-rabbit at 1/2000 dilution

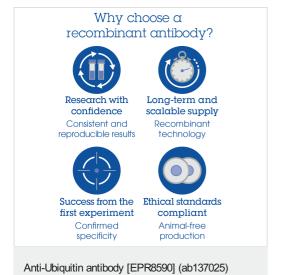
Predicted band size: 9 kDa

Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labelling Ubiquitin with ab137025 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Ubiquitin antibody
[EPR8590] (ab137025)



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