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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-Ubiquitin Antibody [6C11-B3]

Mouse Anti-Bovine Ubiquitin Monoclonal IgG2a Kappa
Catalog No. SMC-171

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview

Product Name

Ubiquitin Antibody

Description

Mouse Anti-Bovine Ubiquitin Monoclonal IgG2a Kappa

Species Reactivity

Human, Mouse, Rat, Bovine

Applications

WB, ICC/IF, ELISA

Antibody Dilution

WB (1:1000), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.

Host Species

Mouse

Immunogen Species

Bovine

Immunogen

Native bovine ubiquitin, conjugated to KLH

Concentration

1 mg/ml

Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

Properties

Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Storage Temperature

-20ºC

Shipping Temperature

Blue Ice or 4ºC

Purification

Protein G Purified

Clonality

Monoclonal

Clone Number

6C11-B3

Isotype

IgG2a Kappa

Specificity

Detects ~10kDa.

Cite This Product

Mouse Anti-Bovine Ubiquitin Monoclonal, Clone 6C11-B3 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-171)

Certificate Of Analysis

1 µg/ml of SMC-171 was sufficient for detection of ubiquitin in 10 µg of Hela Lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Biological Description

Alternative Names

Polyubiquitin B Antibody, RPS27A Antibody, UBA52 Antibody, UBB Antibody, UBC Antibody, ubiquitin B Antibody

Research Areas

Cell Signaling, Post-translational Modifications, Ubiquitination

Cellular Localization

Cytoplasm, Nucleus

Accession Number

NP_776558.1

Gene ID

281370

Swiss Prot

P0CG53

Scientific Background

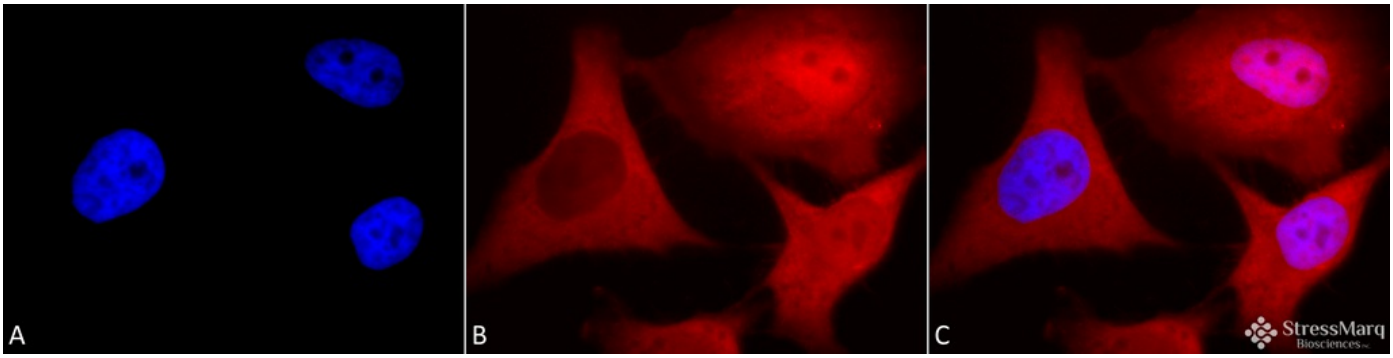
Ubiquitin is a small protein that occurs in all eukaryotic cells. The ubiquitin protein itself consists of 76 amino acids and has a molecular mass of about 8.5kDa. Key features include its C-terminal tail and the 7 Lys residues. It is highly conserved among eukaryotic species: Human and yeast ubiquitin share 96% sequence identity (1). The main function of Ubiquitin is to clear abnormal, foreign and improperly folded proteins by targeting them for degradation by the 26S proteosome (2). Ubiquitination represents an essential cellular process affected by a multi-enzyme cascade involving classes of enzymes known as ubiquitin-activating enzymes (E1s), ubiquitin-conjugating enzymes (E2s or Ubcs) and ubiquitin-protein ligases (E3s). Ubiquitin is activated in a two-step reaction by an E1 ubiquitin-activating enzyme in a process requiring ATP as an energy source. The initial step involves production of an ubiquitin-adenylate intermediate. The second step transfers ubiquitin to the E1 active site cysteine residue, with release of AMP. This step results in a thioester linkage between the C-terminal carboxyl group of ubiquitin and the E1 cysteine sulfhydryl group. The third step is a transfer of ubiquitin from E1 to the active site cysteine of a ubiquitin-conjugating enzyme E2 via a trans(thio)esterification reaction. And the final step of the ubiquitylation cascade creates an isopeptide bond between a

lysine of the target protein and the C-terminal glycine of ubiquitin. In general, this step requires the activity of one of the hundreds of E3 ubiquitin-protein ligases (often termed simply ubiquitin ligase). E3 enzymes function as the substrate recognition modules of the system and are capable of interaction with both E2 and substrate(2, 3). Ubiquitination also participates in the internalization and degradation of plasma membrane proteins such as some of the TCR subunits while still ER-membrane associated (4). Ubiquitin also plays a role in regulating signal transduction cascades through the elimination inhibitory proteins, such as I?B? and p27 (5).

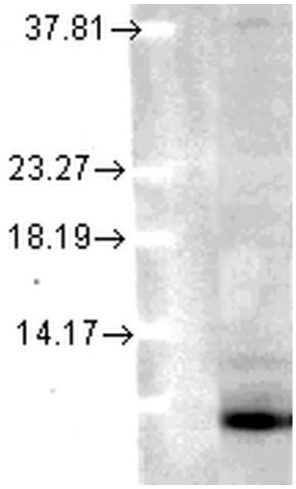
References

1. Wilkinson K.D. (1995) Annu. Rev. Nutr. 15:161-189.
2. Bonifacino J.S., et al. (1998) Annu Rev Cell Dev Biol. 14: 19-57.
3. Boston Biochem: "Ubiquitin Proteasome Pathway Overview http://www.bostonbiochem.com/upp.php
4. Yang M., et al. (1998) J Exp Med. 187: 1835-1846.
5. Chen Z.J., et al. (1996) Cell 84: 853-862.

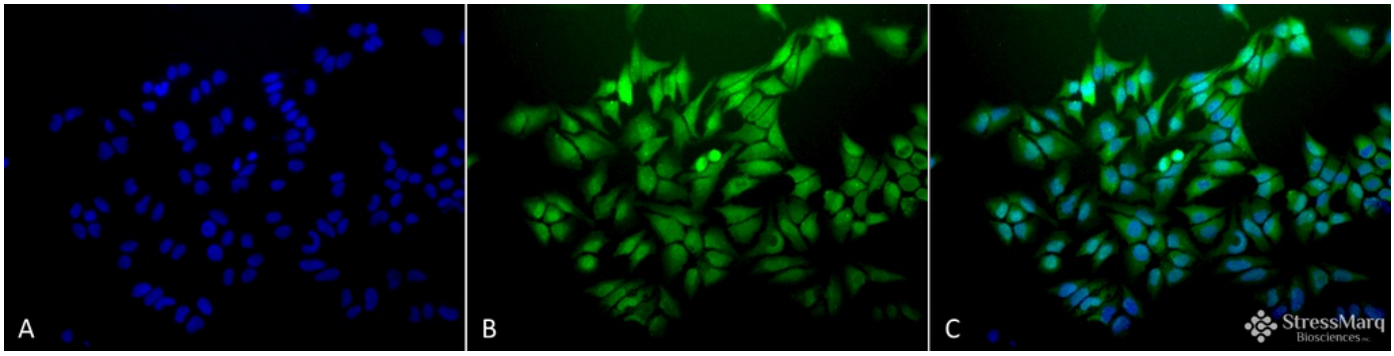
Product Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Ubiquitin Monoclonal Antibody, Clone 6C11-B3 (SMC-171). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Ubiquitin Monoclonal Antibody (SMC-171) at 1:100 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Mouse (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Diffuse nuclear and cytoplasmic staining. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Ubiquitin Antibody. (C) Composite.



Western Blot analysis of Human Cell lysates showing detection of Ubiquitin protein using Mouse Anti-Ubiquitin Monoclonal Antibody, Clone 6C11-B3 (SMC-171). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Ubiquitin Monoclonal Antibody (SMC-171) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Ubiquitin Monoclonal Antibody, Clone 6C11-B3 (SMC-171). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Ubiquitin Monoclonal Antibody (SMC-171) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Diffuse nuclear and cytoplasmic staining. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Ubiquitin Antibody. (C) Composite.

Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.