

Product datasheet

Synthetic Human Ubiquitin protein (Biotin) ab218615

1 Image

Description

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<b>Product name</b>	Synthetic Human Ubiquitin protein (Biotin)
<b>Expression system</b>	Synthetic
<b>Accession</b>	<a href="#">P0CG47</a>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Synthetic
<b>Species</b>	Human
<b>Predicted molecular weight</b>	9 kDa
<b>Amino acids</b>	1 to 76
<b>Additional sequence information</b>	A single biotin moiety is conjugated on the N-terminus of ubiquitin. All lysine residues of ubiquitin are still available for formation of polyubiquitin chains.
<b>Conjugation</b>	Biotin

Specifications

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Our [Abpromise guarantee](#) covers the use of **ab218615** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	Functional Studies Mass Spectrometry HPLC
<b>Form</b>	Liquid
<b>Additional notes</b>	The extremely high binding affinity between biotin and streptavidin allows the use of N-terminal biotin-ubiquitin for the following in vitro assays: 1) rapid and efficient purification of polyubiquitinated substrate proteins; 2) monitoring substrate ubiquitination using an HRP-conjugated streptavidin antibody; and 3) setting up high throughput FRET assays to monitor substrate ubiquitination in assays screening E3 ubiquitin ligase inhibitors.

Preparation and Storage

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## Stability and Storage

Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.

pH: 7.60

Constituents: 0.24% Tris, 0.58% Sodium chloride, 10% Glycerol

## General Info

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### Relevance

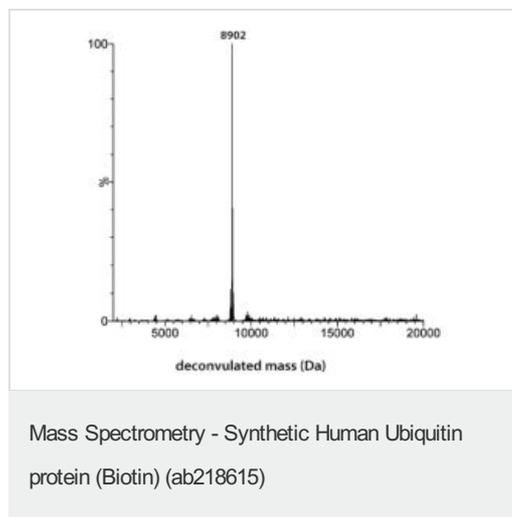
Function: Ubiquitin exists either covalently attached to another protein, or free (unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or 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-11-linked 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 ubiquitin-like domains.

### Cellular localization

Cell Membrane, Cytoplasmic and Nuclear

## Images

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LC-MS analysis of ab218615.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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