



Anti-Ubiquitin monoclonal antibody, clone 94537 [Biotin] (DCABY-4303)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	Ubiquitin is a 76 amino acid (aa) protein that is ubiquitously expressed in all eukaryotic organisms. Ubiquitin is highly conserved with 96% aa sequence identity shared between human and yeast Ubiquitin, and 100% aa sequence identity shared between human and mouse Ubiquitin. In mammals, four Ubiquitin genes encode for two Ubiquitin-ribosomal fusion proteins and two poly-Ubiquitin proteins. Cleavage of the Ubiquitin precursors by deubiquitinating enzymes gives rise to identical Ubiquitin monomers each with a predicted molecular weight of 8.6 kDa. Conjugation of Ubiquitin to target proteins involves the formation of an isopeptide bond between the C-terminal glycine residue of Ubiquitin and a lysine residue in the target protein. This process of conjugation, referred to as ubiquitination or ubiquitylation, is a multi-step process that requires three enzymes: a Ubiquitin-activating (E1) enzyme, a Ubiquitin-conjugating (E2) enzyme, and a Ubiquitin ligase (E3). Ubiquitination is classically recognized as a mechanism to target proteins for degradation and as a result, Ubiquitin was originally named ATP-dependent Proteolysis Factor 1 (APF-1). In addition to protein degradation, ubiquitination has been shown to mediate a variety of biological processes such as signal transduction, endocytosis, and post-endocytic sorting.
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Specificity	Detects human Ubiquitin+1 in direct ELISAs. This antibody recognizes an epitope from the carboxy-terminal segment that is unique to Ubiquitin+1. It does not cross-react with Ubiquitin.
Immunogen	E. coli-derived recombinant human Ubiquitin+1
Isotype	IgG2b
Source/Host	Mouse
Species Reactivity	Human
Clone	94537
Purification	Protein A or G purified from hybridoma culture supernatant

Conjugate	Biotin
Applications	Western Blot, ELISA Detection (Matched Pair)
Format	Liquid
Size	250 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein.
Preservative	None
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	UBB ubiquitin B [Homo sapiens (human)]
Official Symbol	UBB
Synonyms	UBB; ubiquitin B; polyubiquitin-B; polyubiquitin B;
Entrez Gene ID	7314
Protein Refseq	NP_001268645
UniProt ID	P0CG47
Chromosome Location	17p12-p11.2
Pathway	APC/C-mediated degradation of cell cycle proteins; APC/C:Cdc20 mediated degradation of Cyclin B; APC/C:Cdc20 mediated degradation of Securin; APC/C:Cdc20 mediated degradation of mitotic proteins; APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cd
Function	protein binding;