

DESCRIPTION

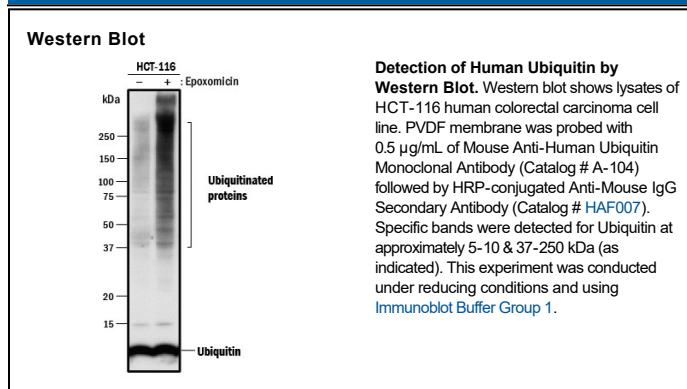
Species Reactivity	Human
Specificity	This antibody detects human Ubiquitin and Ubiquitin+1 in Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 83406
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human Ubiquitin+1 synthetic peptide SSMQIFVKTLTGKTTITLEVEPSDTIENVKAKIQDKEIPDQQLIFAGKQ LEDGRTLSDYNIQKESTLHLVLRRLRGYADLREDPDRQDHPGSGAQ
Formulation	Supplied as a solution in PBS containing Glycerol and Sodium Azide. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1-0.5 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C, as supplied. • 1 month, 2 to 8 °C under sterile conditions after opening. • 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

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. In mammals, four ubiquitin genes encode for two ubiquitinribosomal fusion proteins and two polyubiquitin 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 Cterminal glycine residue of ubiquitin and a lysine residue in the target protein. This process of conjugation, referred to as ubiquitination or ubiquitylation, is a multistep process that requires three enzymes: a ubiquitinactivating (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 ATPdependent Proteolysis Factor 1 (APF1). In addition to protein degradation, ubiquitination has been shown to mediate a variety of biological processes such as signal transduction, endocytosis, and postendocytic sorting.

References:

PRODUCT SPECIFIC NOTICES

* Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.