Background: Ubiquitin is a conserved polypeptide unit that plays an important role in the ubiquitin-proteasome pathway. Ubiquitin can be covalently linked to many cellular proteins by the ubiquitination process, which targets proteins for degradation by the 26S proteasome. Three components are involved in the target protein-ubiquitin conjugation process. Ubiquitin is first activated by forming a thiolester complex with the activation component E1; the activated ubiquitin is subsequently transferred to the ubiquitin-carrier protein E2, then from E2 to ubiquitin ligase E3 for final delivery to the epsilon-NH2 of the target protein lysine residue (1-3). The ubiquitin-proteasome pathway has been implicated in a wide range of normal biological processes and in disease-related abnormalities. Several proteins such as IκB, p53, cdc25a and bcl-2 have been shown to be targets for the ubiquitin-proteasome process as part of regulation of cell cycle progression, differentiation, cell stress response and apoptosis (4-7).

Specificity/Sensitivity: Ubiquitin Antibody detects ubiquitin, polyubiquitin and ubiquitinated proteins. This antibody may cross-react with recombinant NEDD8.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of the human ubiquitin protein. Antibodies are purified by protein A and peptide affinity chromatography.

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunohistochemistry (Paraffin) 1:600†

For product specific protocols please see the web page for this product at www.cellsignal.com.

Background References:

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.