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Product Information

UBIQUITIN, N-TERMINAL FLAG-TAGGED

Lyophilized, essentially salt free

Product Number **U5382**

Product Description

The ubiquitin-proteasome pathway is a controlled ATP dependent cellular protein degradation system. This system plays a central role in degradation of short-lived and regulatory proteins important in a variety of basic cellular processes. These processes include amongst others regulation of the cell cycle, modulation of cell surface receptors and ion channels and antigen presentation. The ubiquitin proteasome pathway involves an enzymatic cascade through which multiple ubiquitin molecules are covalently attached to the protein substrate to form a poly-ubiquitin-protein conjugate, which is then degraded by the 26S proteasome complex.^{1,2}

Recently it was suggested that exogenous ubiquitin can induce apoptosis in various cell lines.³

Ubiquitin, N-terminal FLAG-tagged (FLAG-ubiquitin, M.W. approximately 10 kDa) can replace the ubiquitin in formation of poly-ubiquitin-protein conjugates. The FLAG tag enables separation and enrichment of the protein conjugates on anti-FLAG affinity columns and detection of conjugates in western blots using anti-FLAG antibodies.⁴

Reagents

Purity: minimum 95% by SDS-PAGE

Preparation Instructions

Solubility: 10 mg/ml in 50 mM Tris, pH 7.4

Storage/Stability

Store at -20°C.

References

1. Hershko, A. and Ciechanover, A., Annu. Rev. Biochem, **61**, 761-807 (1992).
2. Schwartz, A. and Ciechanover, A., Annu. Rev. Med., **50**, 21645-21649 (1999).
3. Matsumura, D.H., et al., Blood, **95**, 2577-2585 (2000)
4. Brizzard, B.L., et al., Biotechniques, **16**, 730-735 (1994).

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