THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON
Office of Technology Management

ANTI-NEDD8 POLYCLONAL ANTIBODY

Market: Regulation of the cell cycle involves steps that are critical to cell survival, including the detection and repair of genetic damage as well as the prevention of uncontrolled cell division. Studies on the cell cycle impact huge market sectors such as oncology.

Background: Neural precursor cell expressed, developmentally down-regulated 8 (NEDD8) is a ubiquitin-like protein that modulates the cullin subunits of SCF ubiquitin E3 ligases. NEDDylation of the cullins is required for recruitment of E2 to the ligase complex, facilitating ubiquitin conjugation, and thereby playing a role in cell cycle progression and cytoskeletal regulation.

The Technology: A researcher at the University of Texas Health Science Center at Houston (UTHSC-H) developed a polyclonal antibody to NEDD8. This unique tool can be used to study cellular expression, regulation, and interactions between the NEDD8 conjugation system and the proteasomal degradation pathway.

Publications:

- Kamitani T, Katsumi K, Nguyen R, Yeh ETH (1997) Characterization of NEDD8, a developmentally down-regulated ubiquitin-like molecule. J Biol Chem 272:28557-28562.
- Wada, H; Kito K, Caskey L S, Yeh E T, Kamitani T (Oct. 1998). "Cleavage of the C-terminus of NEDD8 by UCH-L3". *Biochem. Biophys. Res. Commun.* (UNITED STATES) **251** (3): 688-92.
- Gong L, Yeh ETH (1999) Identification of the activating and conjugating enzymes of the NEDD8-conjugation pathway. J Biol Chem 274:12036-12042.
- Kamitani T, Kito K, Fukuda-Kamitani T, Yeh ETH (2001) Targeting of NEDD8 and its conjugates for proteasomal degradation by Nub1. J Biol Chem 276:46655-46660.
- Tanaka, T., Kawashima, H., Yeh, E.T.H., Kamitani, T. (2003) Regulation of NEDD8 conjugation system by a splicing variant, NUB1L. Journal of Biological Chemistry, 278:32905-32913.

NON-CONFIDENTIAL TECHNOLOGY DESCRIPTION

The preceding is intended to be a non-confidential summary of a novel technology created at the University of Texas Health Science center at Houston (UTHSCH), for which the University has obtained patent protection.

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License Available: world-wide; non-exclusive

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