



P80838Mu01
Otubain 1 (OTUB1)
Organism: Mus musculus (Mouse)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES

3th Edition (Revised in February, 2012)

[DESCRIPTION]

Protein Names: Otubain 1

Gene Names: OTUB1

Size: 100 μ g

Source: Recombinant

Expression Host: *E. coli*

Function: Hydrolase that can remove conjugated ubiquitin from proteins in vitro and may therefore play an important regulatory role at the level of protein turnover by preventing degradation. Regulator of T-cell anergy, a phenomenon that occurs when T-cells are rendered unresponsive to antigen rechallenge and no longer respond to their cognate antigen. Acts via its interaction with RNF128/GRAIL. Surprisingly, it regulates RNF128-mediated ubiquitination, but does not deubiquitinate polyubiquitinated RNF128. Deubiquitinates estrogen receptor alpha (ESR1). Mediates deubiquitination of 'Lys-48'-linked polyubiquitin chains, but not 'Lys-63'-linked polyubiquitin chains. Not able to cleave di-ubiquitin. Also capable of removing NEDD8 from NEDD8 conjugates, but with a much lower preference compared to 'Lys-48'-linked ubiquitin.

Subcellular Location: Cytoplasm

[PROPERTIES]

Residues: Met1~Lys271 (Accession # Q7TQI3), with a N-terminal His-tag.

Grade & Purity: >97%, 32.51 kDa as determined by SDS-PAGE reducing conditions.



Form & Buffer: Supplied as lyophilized form in PBS, pH 7.4.

Endotoxin Level: <1.0 EU per 1 μ g (determined by the LAL method).

Applications: SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

Predicted Molecular Mass: 32.51 kDa

[PREPARATION]

Reconstitute in PBS.

[STORAGE AND STABILITY]

Storage: Store at 4°C for short time storage (1-2 weeks). Aliquot and store at -20°C or -80°C for long term storage.

Avoid repeated freeze/thaw cycles.

Valid period: 12 months stored at -80°C.

[BACKGROUND]

The target protein is fused with a His-tag and its sequence is listed below. The first Met is an initiator amino acid. Moreover, Gly and Ser are added to improve the flexibility of N-terminus at both ends of the His-tag, which will increase the chelating ability of the tag to Ni-Sepharose during purification.

MGHHHHHSGS-MAAEEPQQK QEPLGSDSEG VNCLAYDEAI MAQQDRIQQE IAVQNPLVSE RLELSVLYKE
YAEDDNIYQQ KIKDLHKKYS YIRKTRPDGN CFYRAFGFSSH LEALLDDSKE LQRFKAVSAK SKEDLVSQGF
TEFTIEDFHN TFMDLIEQVE KQTSVADLLA SFNDQSTSDY LVVYLRLLS GYLQRESKFF EHFIEGGRTV
KEFCQQEVEP MCKESDHIHI IALAQALSVS IQVEYMDRGE GGTTNPHVFP EGSEPKVYLL YRPGHYDILY K

