

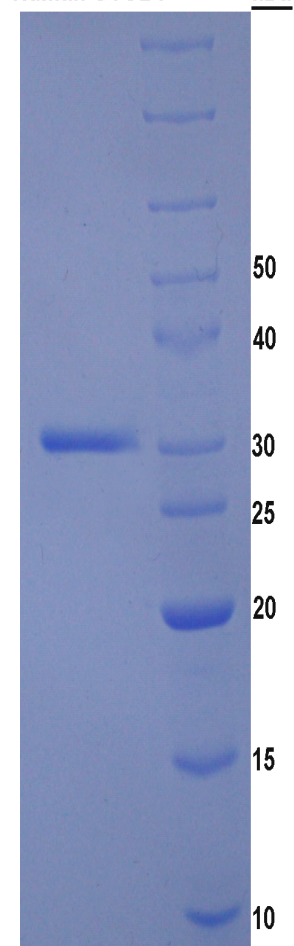


P80838Hu01
Otubain 1 (OTUB1)
Organism: Homo sapiens (Human)
Instruction manual

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

1th Edition (Revised in February, 2012)

Human OTUB1 kDa



15% Tris-glycine SDS-PAGE

[DESCRIPTION]

Protein Names: Otubain 1

Gene Names: OTUB1

Size: 100μg

Source: Recombinant

Expression Host: *E.coli*

Function: Hydrolase that can remove conjugated ubiquitin from proteins and plays 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, a crucial inductor of CD4 T-cell anergy.

Subcellular Location: Cytoplasm

Tissue Specificity: Isoform 1 is ubiquitous. Isoform 2 is expressed only in lymphoid tissues such as tonsils, lymph nodes, spleen and peripheral blood mononuclear cells.

[PROPERTIES]

Residues: Met1~Lys271 (Accession # Q96FW1), with a N-terminal His-tag.

Grade & Purity: >97%, 32.53 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 1μg(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: 32.53 kDa

[PREPARATION]

Reconstitute in PBS.



[STORAGE AND STABILITY]

Storage: Store at 4°C for short term 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-MAAEEPQQQK QEPLGSDSEG VNCLAYDEAI MAQQDRIQQE IAVQNPLVSE RLELSVLYKE
YAEDDNIYQQ KIKDLHKKYS YIRKTRPDGN CFYRAFGFSH LEALLDDSKE LQRFKAVSAK SKEDLVSQGF
TEFTIEDFHN TFMDLIEQVE KQTSVADLLA SFNDQSTSDY LVVYLRLITS GYLQRESKFF EHFIEGGRTV
KEFCQQEVEP MCKESDHIHI IALAQALSVS IQVEYMDRGE GGTTNPHIFP EGSEPKVYLL YRPGHYDILY K

[REFERENCES]

1. Borodovsky A., et al. (2002) Chem. Biol. 9:1149-1159.
2. Balakirev M.Y., et al. (2003) EMBO Rep. 4:517-522.
3. Stanisic V., et al. (2009) Borodovsky A., et al. J. Biol. Chem. 284:16135-16145.
4. Soares L., et al. (2004) Nat. Immunol. 5:45-54.
5. Edelman M.J., et al. (2009) Biochem. J. 418:379-390.
6. Wang T., et al. (2009) J. Mol. Biol. 386:1011-1023.

