



Recombinant Protein Technical Manual
Recombinant Human OTUB1/OTB1 Protein (His Tag)
RPES1673

Product Data:

Product SKU: RPES1673

Size: 50µg

Species: Human

Expression host: E. coli

Uniprot: Q96FW1

Protein Information:

Molecular Mass: 32.8 kDa

AP Molecular Mass: 37 kDa

Tag: N-His

Bio-activity:

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, 20% glycerol, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: HSPC263;OTB1;OTU1

Immunogen Information:

Sequence: Met 1-Lys 271

Background:

Ubiquitin thioesterase OTUB1, also known as Deubiquitinating enzyme OTUB1, OTU domain-containing ubiquitin aldehyde-binding protein 1, Otubain, Ubiquitin-specific-processing protease OTUB1, OTUB1 and OTB1, is a cytoplasm protein which belongs to the peptidase C65 family. OTUB1 is a hydrolase that can remove conjugated ubiquitin from proteins and plays an important regulatory role at the level of protein turnover by preventing degradation. OTUB1 is a 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. OTUB1 acts via its interaction with RNF128 / GRAIL, a crucial inductor of CD4 T-cell anergy. Isoform 1 of OTUB1 destabilizes RNF128, leading to prevent anergy. In contrast, isoform 2 of OTUB1 stabilizes RNF128 and promotes anergy. OTUB1 regulates RNF128-mediated ubiquitination, but does not deubiquitinate polyubiquitinated RNF128. Deubiquitinates estrogen receptor alpha (ESR1). OTUB1 mediates deubiquitination of 'Lys-48'-linked polyubiquitin chains, but not 'Lys-63'-linked polyubiquitin chains. OTUB1 is also capable of removing NEDD8 from NEDD8 conjugates, but with a much lower preference compared to 'Lys-48'-linked ubiquitin.