Recombinant Human OTUB1/OTB1 Protein (His Tag)

Catalog Number: PKSH030767

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

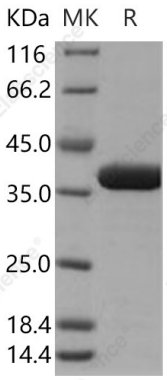
Description

Species	Human
Source	E.coli-derived Human OTUB1/OTB1 protein Met 1-Lys 271, with an N-terminal His
Calculated MW	32.8 kDa
Observed MW	37 kDa
Accession	Q96FW1-1
Bio-activity	Not validated for activity

Properties

Purity	> 97% as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/ gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile PBS, 20% glycerol, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

Ubiquitin thioesterase OTUB1, also known as Deubiquitinating enzyme OTUB1, OTU domain-containing ubiquitin aldehyde-binding protein 1, Otubain-1, Ubiquitin-specific-processing protease OTUB1, OTUB1 and OTB1, is a cytoplasm protein which belongs to thepeptidase 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. Isoform1 of OTUB1 destabilizes RNF128, leading to prevent anergy. In contrast, isoform2of 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.

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