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USP8 Antibody
Chicken Polyclonal Antibody
Catalog # ABV11127

Specification

USP8 Antibody - Product Information

Application	**WB**
Primary Accession	P40818
Reactivity	**Human**
Host	**Chicken**
Clonality	**Polyclonal**
Isotype	**Chicken IgG**
Calculated MW	**127523**

USP8 Antibody - Additional Information

Gene ID 9101

Application & Usage	**Western blot: Robust detection of 100 ng of recombinant protein was possible when antibody was used at a final concentration of 5 µg/mL**

Other Names
Deubiquitinating enzyme 8, hUBPy, HumORF8, KIAA0055, MGC129718, Ubiquitin carboxyl-terminal hydrolase 8, Ubiquitin-specific processing protease 8, Ubiquitin thioesterase 8, UBP, Ubiquitin Specific Protease 8

Target/Specificity
USP8

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
50 µg of antibody in PBS containing 10% glycerol

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
USP8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

USP8 Antibody - Protein Information

Name USP8 (HGNC:12631)

Synonyms KIAA0055, UBPY

Function
Hydrolase that can remove conjugated ubiquitin from proteins and therefore plays an important regulatory role at the level of protein turnover by preventing degradation. Converts both 'Lys-48' an 'Lys-63'-linked ubiquitin chains. Catalytic activity is enhanced in the M phase. Involved in cell proliferation. Required to enter into S phase in response to serum stimulation. May regulate T-cell anergy mediated by RNF128 via the formation of a complex containing RNF128 and OTUB1. Probably regulates the stability of STAM2 and RASGRF1. Regulates endosomal ubiquitin dynamics, cargo sorting, membrane traffic at early endosomes, and maintenance of ESCRT-0 stability. The level of protein ubiquitination on endosomes is essential for maintaining the morphology of the organelle. Deubiquitinates EPS15 and controls tyrosine kinase stability. Removes conjugated ubiquitin from EGFR thus regulating EGFR degradation and downstream MAPK signaling. Involved in acrosome biogenesis through interaction with the spermatid ESCRT-0 complex and microtubules. Deubiquitinates BIRC6/bruce and KIF23/MKLP1. Deubiquitinates BACE1 which inhibits BACE1 lysosomal degradation and modulates BACE-mediated APP cleavage and amyloid-beta formation (PubMed:27302062).

Cellular Location
Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q80U87} Endosome membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein

USP8 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

USP8 Antibody - Images

USP8 Antibody - Background

Ubiquitinating enzymes (UBEs) catalyze protein ubiquitination, a reversible process countered by deubiquitinating enzyme (DUB) action. Five DUB subfamilies are recognized, including the USP, UCH, OTU, MJD, and JAMM enzymes. The deubiquitinating enzyme ubiquitin-specific protease 8 (USP8/UBPy) is a cysteine protease belonging to the USP/UBP subfamily. Research studies have shown that USP8 is an essential growth-regulated enzyme indispensible for cell proliferation and survival. Indeed, conditional knock-out of murine USP8 was shown to promote a dramatic loss in expression of receptor tyrosine kinases, including EGFR, ErbB3, and c-Met. In agreement with these findings, USP8 inactivation leads to enhanced ubiquitination of ligand-activated EGFR. Furthermore, phosphorylation of USP8 at Ser680 results in its binding of 14-3-3, catalytic inactivation, and reduced EGFR deubiquitination. It appears as though USP8, in conjunction with components of the

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ESCRT-0 complex, plays an integral role in the early endosomal sorting machinery that functions to protect EGFR from lysosomal degradation.