abcam

Product datasheet

Recombinant Human UBPY/USP8 protein ab127607

1 References

Description

Product name Recombinant Human UBPY/USP8 protein

Purity > 95 % SDS-PAGE.

Purified via His tag

Expression system Escherichia coli

Accession P40818

Protein length Protein fragment

Animal free No

Nature Recombinant

Species Human
Predicted molecular weight 25 kDa

Amino acids 886 to 1096

Tags His-DHFR tag N-Terminus

Specifications

Our Abpromise guarantee covers the use of ab127607 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Lyophilized

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at -20°C.

Constituents: 0.32% Tris HCI, 0.58% Sodium chloride

Reconstitution Reconstitute with water to desired concentration.

General Info

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

1

'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 controles 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.

Sequence similarities

Belongs to the peptidase C19 family.

Contains 1 MIT domain.

Contains 1 rhodanese domain.

Contains 1 USP domain.

Domain

The MIT domain is required for endosomal localization, CHMP1B-binding, maintenance of

ESCRT-0 stability and EGFR degradation.

The rhodanese domain is sufficient for RNF41-binding.

Post-translational modifications

Phosphorylation of Ser-718 is essential for interaction with YWHAE and for cytosol localization.

Undergoes dephosphorylation at Ser-718 in the M phase. Tyrosine-phosphorylated in its N-

terminal half in an EGFR-dependent manner.

Ubiquitinated. Inactive form is mostly monoubiquitinated, but polyubiquitination happens too. Ubiquitination is increased in EGF-stimulated cells. Ubiquitination of active form is undetectable, suggesting a possibility that USP8 deubiquitinates itself, thereby regulating its own function.

Cellular localization

Cytoplasm. Nucleus. Endosome membrane. Cell membrane.

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