Human USP8 Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7735R
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human USP8 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human USP2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human USP8 Met1-Thr1118 Accession # P40818
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

USP8 (Ubiquitin-Specific-Processing protein 8; also UBPY and ubiquitin carboxyterminal hydrolase 8) is a 125-130 kDa member of the peptidase C19 family of proteins. It is a widely expressed deubiquitinating enzyme that regulates the internalization and trafficking of transmembrane growth factor receptors. Ubiquitinated TKRs are typically targeted for internalization and degradation, and USP8 appears to block this activity. Conversely, USP8 has been shown to have opposite effects on GPCR activity. Here, it accelerates ubiquitinated chemokine receptor (CXCR4) internalization and subsequent inactivation, notably through a deubiquitination-independent mechanism. Human USP8 is 1118 amino acids (aa) in length. It contains one MIT domain that mediates endosomal trafficking (aa 33-116), a rhodanese domain that binds RNF proteins (aa 184-305), an SH3 domain binding sequence (aa 405-413), and a C-terminal catalytic domain that hydrolyses ubiquitin adducts (aa 776-1106). USP8 is phosphorylated at Ser702, 705, 784 and 787. There is one oncogenic recombination isoform that fuses the p85 β-subunit of PI3 kinase to the C-terminal 363 aa of USP8, beginning with Pro746. Full-length human and mouse USP8 share 82% aa sequence identity.

PRODUCT SPECIFIC NOTICES

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