

USP5 (1340CT704.170.140): sc-517374

BACKGROUND

The ubiquitin (Ub) pathway involves three sequential enzymatic steps that facilitate the conjugation of Ub and Ub-like molecules to specific protein substrates. Through the use of a wide range of enzymes that can add or remove ubiquitin, the Ub pathway controls many intracellular processes such as signal transduction, transcriptional activation and cell cycle progression. USP5 (ubiquitin specific peptidase 5), also known as ISOT (isopeptidase T), is a 858 amino acid zinc-binding deubiquitinating enzyme that participates in the Ub pathway. A member of the peptidase C19 family, the catalytic activity of USP5 involves a combination of the ubiquitin carboxyl-terminal thiolester and water to produce ubiquitin and a thiol. USP5 contains two UBA domains and one UBP-type zinc finger. USP5 is responsible for disassembling unanchored polyubiquitin chains in the cell.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: USP5 (human) mapping to 12p13.31; Usp5 (mouse) mapping to 6 F2.

SOURCE

USP5 (1340CT704.170.140) is a mouse monoclonal antibody raised against a recombinant protein corresponding to USP5 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

USP5 (1340CT704.170.140) is recommended for detection of USP5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for USP5 siRNA (h): sc-76869, USP5 siRNA (m): sc-76870, USP5 shRNA Plasmid (h): sc-76869-SH, USP5 shRNA Plasmid (m): sc-76870-SH, USP5 shRNA (h) Lentiviral Particles: sc-76869-V and USP5 shRNA (m) Lentiviral Particles: sc-76870-V.

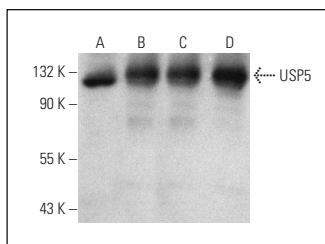
Molecular Weight of USP5: 96 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, MCF7 whole cell lysate: sc-2206 or mouse brain extract: sc-2253.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



USP5 (1340CT704.170.140): sc-517374. Western blot analysis of USP5 expression in PC-3 (A) and MCF7 (B) whole cell lysates and mouse brain (C) and rat brain (D) tissue extracts.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.