**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.

**CHROMOSOMAL LOCATION**

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

**SOURCE**

USP5 (C-11) is a mouse monoclonal antibody raised against amino acids 66-185 mapping near the N-terminus of USP5 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₂κ light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

USP5 (C-11) is available conjugated to agaroase (sc-390943 AC), 500 µg/0.25 ml agaroase in 1 ml, for IP; to HRP (sc-390943 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390943 PE), fluorescein (sc-390943 FITC), Alexa Fluor® 488 (sc-390943 AF488), Alexa Fluor® 546 (sc-390943 AF546), Alexa Fluor® 594 (sc-390943 AF594) or Alexa Fluor® 647 (sc-390943 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390943 AF680) or Alexa Fluor® 790 (sc-390943 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

USP5 (C-11) is recommended for detection of USP5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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: MCF7 whole cell lysate: sc-2206, A549 cell lysate: sc-2413 or F9 cell lysate: sc-2245.

**STORAGE**

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

**DATA**

USP5 (C-11): sc-390943. Western blot analysis of USP5 expression in SolI8 (A), Neuro 2A (B), c4 (C), C2C12 (D), F9 (E) and NIH3T3 (F) whole cell lysates.

USP5 (C-11) HRP: sc-390943-HRP. Direct western blot analysis of USP5 expression in MCF7 (A), A549 (B), F9 (C) and C2C12 (D) whole cell lysates.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.