

USP10 (C-7): sc-365828

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. USP10 (ubiquitin specific peptidase 10), also known as UBPO, is a 798 amino acid protein that belongs to the ubiquitin-specific protease family of cysteine proteases. Expressed in a variety of tissues, USP10 functions to catalyze the cleavage of ubiquitin from ubiquitin-conjugated protein substrates, possibly playing a role in the activity of the DNA-bound androgen receptor complex.

CHROMOSOMAL LOCATION

Genetic locus: USP10 (human) mapping to 16q24.1; Usp10 (mouse) mapping to 8 E1.

SOURCE

USP10 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 67-95 near the N-terminus of USP10 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365828 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

USP10 (C-7) is recommended for detection of USP10 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).

USP10 (C-7) is also recommended for detection of USP10 in additional species, including porcine.

Suitable for use as control antibody for USP10 siRNA (h): sc-76811, USP10 siRNA (m): sc-76812, USP10 shRNA Plasmid (h): sc-76811-SH, USP10 shRNA Plasmid (m): sc-76812-SH, USP10 shRNA (h) Lentiviral Particles: sc-76811-V and USP10 shRNA (m) Lentiviral Particles: sc-76812-V.

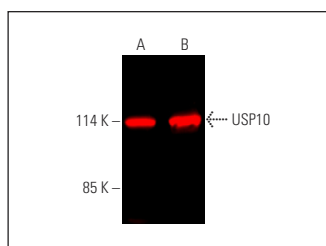
Molecular Weight of USP10: 100 kDa.

Positive Controls: USP10 (m): 293T Lysate: sc-124489, A549 cell lysate: sc-2413 or MCF7 whole cell lysate: sc-2206.

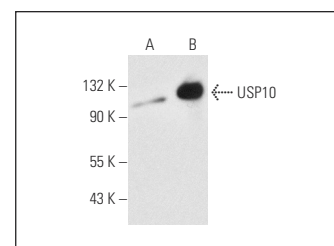
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



USP10 (C-7): sc-365828. Near-infrared western blot analysis of USP10 expression in A549 (A) and MCF7 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.



USP10 (C-7): sc-365828. Western blot analysis of USP10 expression in non-transfected: sc-117752 (A) and mouse USP10 transfected: sc-124489 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Jin, X., et al. 2018. DUB3 promotes BET inhibitor resistance and cancer progression by deubiquitinating BRD4. *Mol. Cell* 71: 592-605.e4.
- Long, C., et al. 2018. LPS promotes HBO1 stability via USP25 to modulate inflammatory gene transcription in THP-1 cells. *Biochim. Biophys. Acta Gene Regul. Mech.* 1861: 773-782.
- Yu, M., et al. 2021. Wu-5, a novel USP10 inhibitor, enhances crenolanib-induced FLT3-ITD-positive AML cell death via inhibiting FLT3 and AMPK pathways. *Acta Pharmacol. Sin.* 42: 604-612.

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.