

USP6/32 (D-11): sc-377306

BACKGROUND

Ubiquitin-specific protease (USP6) is a 1,406 amino acid protein that is very hydrophilic and has two charge clusters that are characteristic of nucleic acid-binding regions. The USP6 gene is oncogenic and originated from the chimeric fusion of two genes: USP32 and TBC1D3. USP32 is an ancient, highly conserved gene, whereas the TBC1D3 gene came from a relatively recent segmental duplication. This duplication is absent in most other mammals and shows rapid amplification and propagation throughout the primate lineage. The chimeric USP6, however, only exists in the hominoid lineage of primates, so it may have contributed to hominoid speciation. USP6 is testis-specific, suggesting an implication in the emergence of reproductive barriers.

CHROMOSOMAL LOCATION

Genetic locus: USP6 (human) mapping to 17p13.2, USP32 (human) mapping to 17q23.1; Usp32 (mouse) mapping to 11 C.

SOURCE

USP6/32 (D-11) is a mouse monoclonal antibody raised against amino acids 1117-1406 mapping at the C-terminus of USP6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

USP6/32 (D-11) is available conjugated to agarose (sc-377306 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377306 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377306 PE), fluorescein (sc-377306 FITC), Alexa Fluor® 488 (sc-377306 AF488), Alexa Fluor® 546 (sc-377306 AF546), Alexa Fluor® 594 (sc-377306 AF594) or Alexa Fluor® 647 (sc-377306 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377306 AF680) or Alexa Fluor® 790 (sc-377306 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

USP6/32 (D-11) is recommended for detection of USP6 isoforms 1 and 2, and USP32 of human origin, and USP32 of mouse and rat 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 USP32 siRNA (m): sc-106679, USP32 shRNA Plasmid (m): sc-106679-SH and USP32 shRNA (m) Lentiviral Particles: sc-106679-V.

Molecular Weight of USP6: 159 kDa.

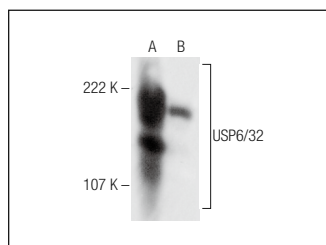
Molecular Weight of USP32: 182 kDa.

Positive Controls: human testis extract: sc-363781 or Caki-1 cell lysate: sc-2224.

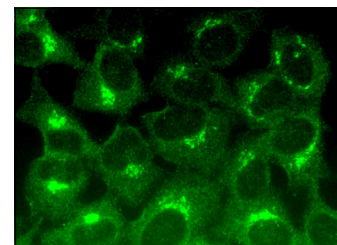
RECOMMENDED SUPPORT REAGENTS

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



USP6/32 (D-11): sc-377306. Western blot analysis of USP6/32 expression in Caki-1 whole cell lysate (A) and human testis tissue extract (B).



USP6/32 (D-11): sc-377306. Immunofluorescence staining of methanol-fixed HeLa cells showing Golgi apparatus and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- 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.
- Zhang, X., et al. 2024. Stress granule-localized USP8 potentiates cGAS-mediated type I interferonopathies through deubiquitination of DDX3X. *Cell Rep.* 43: 114248.

STORAGE

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

PROTOCOLS

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

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