

# UBE2T (D-14): sc-103911

## BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). UBE2T (ubiquitin-conjugating enzyme E2 T), also known as PIG50 or HSPC150, is a 197 amino acid member of the E2 ubiquitin-conjugating enzyme family. Involved in the protein degradation pathway, UBE2T catalyzes the ATP-dependent attachment of ubiquitin (Ub) to target proteins, thereby tagging them for subsequent destruction by the proteasome. Additionally, UBE2T is thought to be a crucial component of the Faconi anemia pathway of DNA damage repair and, upon self-inactivation, may negatively regulate the Faconi pathway.

## REFERENCES

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3. Machida, Y.J., Machida, Y., Chen, Y., Gurtan, A.M., Kupfer, G.M., D'Andrea, A.D. and Dutta, A. 2006. UBE2T is the E2 in the Fanconi anemia pathway and undergoes negative autoregulation. *Mol. Cell* 23: 589-596.
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5. Alpi, A., Langevin, F., Mosedale, G., Machida, Y.J., Dutta, A. and Patel, K.J. 2007. UBE2T, the Fanconi anemia core complex, and FANCD2 are recruited independently to chromatin: a basis for the regulation of FANCD2 monoubiquitination. *Mol. Cell. Biol.* 27: 8421-8430.
6. Zhang, J., Zhao, D., Wang, H., Lin, C.J. and Fei, P. 2008. FANCD2 monoubiquitination provides a link between the HHR6 and FA-BRCA pathways. *Cell Cycle* 7: 407-413.

## CHROMOSOMAL LOCATION

Genetic locus: UBE2T (human) mapping to 1q32.1; Ube2t (mouse) mapping to 1 E4.

## SOURCE

UBE2T (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBE2T of human origin.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## PRODUCT

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

Blocking peptide available for competition studies, sc-103911 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

UBE2T (D-14) is recommended for detection of UBE2T of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other UBE2 family members.

UBE2T (D-14) is also recommended for detection of UBE2T in additional species, including equine.

Suitable for use as control antibody for UBE2T siRNA (h): sc-78641, UBE2T siRNA (m): sc-106661, UBE2T shRNA Plasmid (h): sc-78641-SH, UBE2T shRNA Plasmid (m): sc-106661-SH, UBE2T shRNA (h) Lentiviral Particles: sc-78641-V and UBE2T shRNA (m) Lentiviral Particles: sc-106661-V.

Molecular Weight of UBE2T: 26 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Ramos cell lysate: sc-2216.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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


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Try **UBE2T (4E5): sc-100623**, our highly recommended monoclonal alternative to UBE2T (D-14).