

UBE2A/B (P-12): sc-27526

BACKGROUND

The ubiquitin (Ub) pathway involves three sequential enzymatic steps that facilitate the conjugation of Ub and Ub-like molecules to specific protein substrates. The first step requires the ATP-dependent activation of the Ub C-terminus and the assembly of multi-Ub chains by the Ub-activating enzyme known as the E1 component. The Ub chain is then conjugated to the Ub-conjugating enzyme (E2) to generate an intermediate Ub-E2 complex. The Ub-ligase (E3) then catalyzes the transfer of Ub from E2 to the appropriate protein substrate. UBE2A (Ubiquitin-conjugating enzyme E2 A) and UBE2B (Ubiquitin-conjugating enzyme E2 B) are both Ub-conjugating enzymes that are essential to postreplication repair of UV-damaged DNA. UBE2A and UBE2B are both nuclear and cell membrane proteins that have been found to interact with Rad18.

REFERENCES

1. Baarends, W.M., et al. 2000. Specific aspects of the ubiquitin system in spermatogenesis. *J. Endocrinol. Invest.* 23: 597-604.
2. Adegoke, O.A., et al. 2002. Ubiquitinating-conjugating enzyme E214k/HR6B is dispensable for increased protein catabolism in muscle of fasted mice. *Am. J. Physiol. Endocrinol. Metab.* 283: 482-489.
3. Lyakhovich, A., et al. 2003. Supramolecular complex formation between Rad6 and proteins of the p53 pathway during DNA damage-induced response. *Mol. Cell. Biol.* 23: 2463-2475.

CHROMOSOMAL LOCATION

Genetic locus: UBE2A (human) mapping to Xq24, UBE2B (human) mapping to 5q31.1; Ube2a (mouse) mapping to X A3.3, Ube2b (mouse) mapping to 11 B1.3.

SOURCE

UBE2A/B (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBE2A of human origin.

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-27526 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UBE2A/B (P-12) is recommended for detection of UBE2A and UBE2B 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

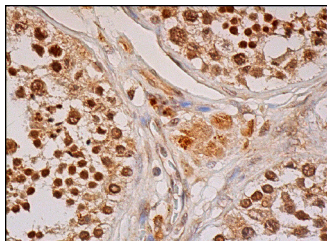
UBE2A/B (P-12) is also recommended for detection of UBE2A and UBE2B in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of UBE2A/B: 17 kDa.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



UBE2A/B (P-12): sc-27526. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of glandular cells and Leydig cells.

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.

PROTOCOLS

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