SANTA CRUZ BIOTECHNOLOGY, INC.

USP27X (G-19): sc-249268

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. USP27X (ubiquitin specific peptidase 27, X-linked), also known as USP27 or USP22L, is a 438 amino acid protein that belongs to the peptidase C19 family. The gene encoding USP27X maps to human chromosome Xp11.23 and mouse chromosome X A1.1. The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development, while two copies of X lead to normal female development. There are a number of conditions related to an unusual number and combinations of sex chromosomes being inherited, such as abnormal X and Turners syndrome.

REFERENCES

1. Wilkinson, K.D. 1997. Regulation of ubiquitin-dependent processes by deubiquitinating enzymes. FASEB J. 11: 1245-1256.
2. Southan, C. 2001. A genomic perspective on human proteases. FEBS Lett. 498: 214-218.
3. Bernardino-Sgherri, J., Flagiello, D. and Dutrillaux, B. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. Cytogenet. Genome Res. 99: 85-91.
4. Puente, X.S., Sánchez, L.M., Overall, C.M. and López-Otín, C. 2003. Human and mouse proteases: a comparative genomic approach. Nat. Rev. Genet. 4: 544-558.
5. Maggio, M.C., Liotta, A., De Grazia, E., Cimador, M., Di Pace, R. and Corsello, G. 2007. Polycystic ovary and gonadoblastoma in Turner's syndrome. Minerva Pediatr. 59: 397-401.

CHROMOSOMAL LOCATION

Genetic locus: USP27X (human) mapping to Xp11.23; Usp27x (mouse) mapping to X A1.1.

SOURCE

USP27X (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of USP27X 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-249268 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

USP27X (G-19) is recommended for detection of USP27X 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 USP family members.

USP27X (G-19) is also recommended for detection of USP27X in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for USP27X siRNA (h): sc-91206, USP27X shRNA Plasmid (h): sc-91206-SH and USP27X shRNA (h) Lentiviral Particles: sc-91206-V.

Molecular Weight of USP27X: 50 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.

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.