

XRN2 (H-300): sc-99237

BACKGROUND

Degradation of mRNA is a critical aspect of gene expression that occurs via the exoribonuclease. Exoribonuclease 2 (XRN2) is the human homolog of the *Saccharomyces cerevisiae* RAT1, which functions as a nuclear 5' to 3' exoribonuclease and is essential for mRNA turnover and cell viability. XRN2 also processes rRNAs and small nucleolar RNAs (snoRNAs) in the nucleus. XRN2 moves along with RNA polymerase II and gains access to the nascent RNA transcript after the endonucleolytic cleavage at the poly(A) site or at a second cotranscriptional cleavage site (CoTC). CoTC is an autocatalytic RNA structure that undergoes rapid self-cleavage and acts as a precursor to termination by presenting a free RNA 5' end to be recognized by XRN2. XRN2 then travels in a 5'-3' direction like a guided torpedo and facilitates the dissociation of the RNA polymerase elongation complex.

CHROMOSOMAL LOCATION

Genetic locus: XRN2 (human) mapping to 20p11.23; Xrn2 (mouse) mapping to 2 G2.

SOURCE

XRN2 (H-300) is a rabbit polyclonal antibody raised against amino acids 651-950 mapping at the C-terminus of XRN2 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.

STORAGE

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

APPLICATIONS

XRN2 (H-300) is recommended for detection of XRN2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), 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).

XRN2 (H-300) is also recommended for detection of XRN2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for XRN2 siRNA (h): sc-61813, XRN2 siRNA (m): sc-61814, XRN2 shRNA Plasmid (h): sc-61813-SH, XRN2 shRNA Plasmid (m): sc-61814-SH, XRN2 shRNA (h) Lentiviral Particles: sc-61813-V and XRN2 shRNA (m) Lentiviral Particles: sc-61814-V.

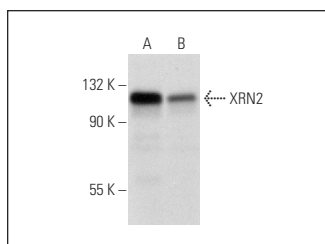
Molecular Weight of XRN2: 117 kDa.

Positive Controls: DU 145 cell lysate: sc-2268 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

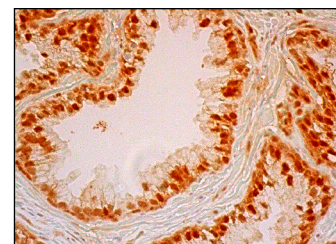
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



XRN2 (H-300): sc-99237. Western blot analysis of XRN2 expression in NTERA-2 cl.D1 (A) and DU 145 (B) whole cell lysates.



XRN2 (H-300): sc-99237. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Wang, M. and Pestov, D.G. 2011. 5'-end surveillance by Xrn2 acts as a shared mechanism for mammalian pre-rRNA maturation and decay. *Nucleic Acids Res.* 39: 1811-1822.

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.


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Try **XRN2 (H-3): sc-365258**, our highly recommended monoclonal alternative to XRN2 (H-300).