

XRN1 (H-150): sc-98459

BACKGROUND

Degradation of mRNA is a critical aspect of gene expression that occurs via the exoribonuclease. Exoribonuclease I (XRN1), also known as Sep1 or Rar5, is a 1,694-amino acid protein that functions as the major cytoplasmic 5 prime to 3 prime exoribonuclease and plays an important role in mRNA turnover. XRN1 may also function in the microtubular cytoskeleton as well as in DNA recombination and replication. XRN1 induces the expression of stress granules (SGs), cytoplasmic aggregates of stalled translational preinitiation complexes that accumulate during stress, and GW bodies/processing bodies (PBs), distinct cytoplasmic sites of mRNA degradation. Loss of XRN1 markedly affects cell growth rates.

REFERENCES

1. Heyer, W.D., et al. 1995. Regulation and intracellular localization of *Saccharomyces cerevisiae* strand exchange protein 1 (Sep1/XRN1/Kem1), a multifunctional exonuclease. *Mol. Cell. Biol.* 15: 2728-2736.
2. Bashkurov, V.I., et al. 1996. Identification of functional is required for transition through meiotic prophase in *Saccharomyces cerevisiae*. *Chromosoma* 104: 215-222.

CHROMOSOMAL LOCATION

Genetic locus: XRN1 (human) mapping to 3q23; Xrn1 (mouse) mapping to 9 E3.3.

SOURCE

XRN1 (H-150) is a rabbit polyclonal antibody raised against amino acids 301-450 mapping within an internal region of XRN1 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.

APPLICATIONS

XRN1 (H-150) is recommended for detection of XRN1 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).

XRN1 (H-150) is also recommended for detection of XRN1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for XRN1 siRNA (h): sc-61811, XRN1 siRNA (m): sc-61812, XRN1 shRNA Plasmid (h): sc-61811-SH, XRN1 shRNA Plasmid (m): sc-61812-SH, XRN1 shRNA (h) Lentiviral Particles: sc-61811-V and XRN1 shRNA (m) Lentiviral Particles: sc-61812-V.

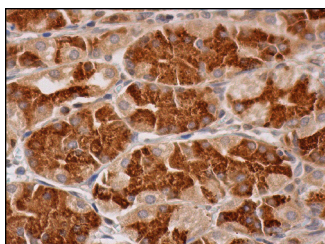
Molecular Weight of XRN1:175 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or BT-20 cell lysate: sc-2223.

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



XRN1 (H-150): sc-98459. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular 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.

MONOS
Satisfaction
Guaranteed

Try **XRN1 (C-1): sc-165985** or **XRN1 (G-2): sc-165984**, our highly recommended monoclonal alternatives to XRN1 (H-150). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **XRN1 (C-1): sc-165985**.