

# XRN1 (K-20): sc-50209

## 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' to 3' 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. It 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

XRN1 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-50209 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

XRN1 (K-20) 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); not recommended for isoform 3.

XRN1 (K-20) is also recommended for detection of XRN1 in additional species, including equine, canine, bovine, porcine and avian.

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.

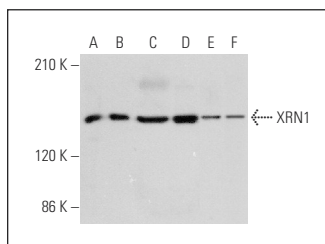
Molecular Weight of XRN1: 175 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

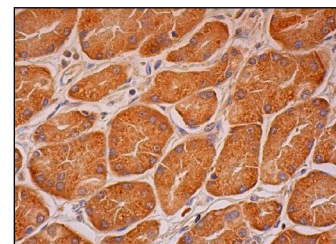
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



XRN1 (K-20): sc-50209. Western blot analysis of XRN1 expression in IMR-32 (A), Jurkat (B), HeLa (C), K-562 (D) and MCF7 (E) whole cell lysates and mouse testis tissue extract (F).



XRN1 (K-20): sc-50209. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **XRN1 (C-1): sc-165985** or **XRN1 (G-2): sc-165984**, our highly recommended monoclonal alternatives to XRN1 (K-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **XRN1 (C-1): sc-165985**.