

# Synoviolin (A-21): sc-130889

## BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). Synoviolin, also known as SYVN1 (synovial apoptosis inhibitor 1) or HRD1, is a 617 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum and contains one RING-type zinc finger. Expressed ubiquitously with highest expression in kidney and liver, Synoviolin exists as a homodimer that exhibits E3 ubiquitin-protein ligase activity and is a component of the ER-associated degradation (ERAD) complex, a multi-protein structure that mediates the degradation of misfolded proteins within the ER. Synoviolin is upregulated in patients with rheumatoid arthritis (RA), suggesting a role for Synoviolin in the pathogenesis of RA.

## CHROMOSOMAL LOCATION

Genetic locus: SYVN1 (human) mapping to 11q13.1; Syvn1 (mouse) mapping to 19 A.

## SOURCE

Synoviolin (A-21) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of Synoviolin of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml 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

Synoviolin (A-21) is recommended for detection of Synoviolin 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).

Suitable for use as control antibody for Synoviolin siRNA (h): sc-76620, Synoviolin siRNA (m): sc-76621, Synoviolin shRNA Plasmid (h): sc-76620-SH, Synoviolin shRNA Plasmid (m): sc-76621-SH, Synoviolin shRNA (h) Lentiviral Particles: sc-76620-V and Synoviolin shRNA (m) Lentiviral Particles: sc-76621-V.

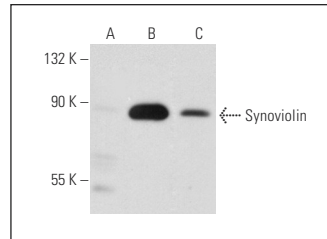
Molecular Weight of Synoviolin: 85 kDa.

Positive Controls: Synoviolin (m): 293T Lysate: sc-123873, Synoviolin (h3): 293T Lysate: sc-170272 or Ramos cell lysate: sc-2216.

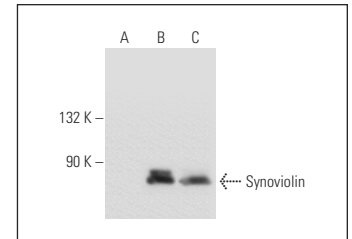
## RESEARCH USE

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

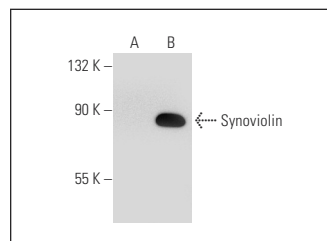
## DATA



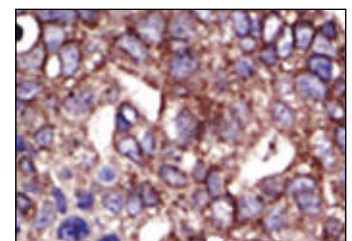
Synoviolin (A-21): sc-130889. Western blot analysis of Synoviolin expression in non-transfected 293T: sc-117752 (A), mouse Synoviolin transfected 293T: sc-123874 (B) and Hep G2 (C) whole cell lysates.



Synoviolin (A-21): sc-130889. Western blot analysis of Synoviolin expression in non-transfected 293T: sc-117752 (A), human Synoviolin transfected 293T: sc-170272 (B) and Ramos (C) whole cell lysates.



Synoviolin (A-21): sc-130889. Western blot analysis of Synoviolin expression in non-transfected: sc-117752 (A) and mouse Synoviolin transfected: sc-123873 (B) 293T whole cell lysates.



Synoviolin (A-21): sc-130889. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic and membrane localization.

## SELECT PRODUCT CITATIONS

1. Wu, T., et al. 2014. Hrd1 suppresses Nrf2-mediated cellular protection during liver cirrhosis. *Genes Dev.* 28: 708-722.

## PROTOCOLS

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



Try **Synoviolin (4H4): sc-293484**, our highly recommended monoclonal alternative to Synoviolin (A-21).