

Derlin-2 (C-18): sc-50824

BACKGROUND

Degradation in endoplasmic reticulum proteins, also designated Derlins or DERtrins, are crucial for the degradation of misfolded endoplasmic reticulum (ER) luminal proteins. Derlins are multi-pass membrane proteins localizing to the ER. They are involved in transferring misfolded proteins from the ER to the cytosol, where the misfolded proteins are destroyed in an ubiquitin-dependent manner by the proteasome. In the case of cytomegalovirus infection, Derlin-1, as opposed to Derlin-2 and -3, is involved in the export of MHC class I heavy chains from the ER via its interaction with the viral protein US11. Derlins may also be important for cell proliferation. They are widely expressed, but highest levels are primarily detected in spleen, pancreas, lung, liver, thymus and ovary. Derlin-2 is overexpressed in hepatocarcinomas.

REFERENCES

1. Ying, H., et al. 2001. Cloning and characterization of F-LANA, upregulated in human liver cancer. *Biochem. Biophys. Res. Commun.* 286: 394-400.
2. Lilley, B.N., et al. 2004. A membrane protein required for dislocation of misfolded proteins from the ER. *Nature* 429: 834-840.
3. Lilley, B.N., et al. 2005. Multiprotein complexes that link dislocation, ubiquitination, and extraction of misfolded proteins from the endoplasmic reticulum membrane. *Proc. Nat. Acad. Sci. USA* 102: 14296-14301.
4. Oda, Y., et al. 2006. Derlin-2 and Derlin-3 are regulated by the mammalian unfolded protein response and are required for ER-associated degradation. *J. Cell Biol.* 172: 383-393.
5. SWISS-PROT/TrEMBL (Q9GZP9). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: DERL2 (human) mapping to 17p13.2; Derl2 (mouse) mapping to 11 B4.

SOURCE

Derlin-2 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Derlin-2 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-50824 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Derlin-2 (C-18) is recommended for detection of Derlin-2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Derlin-2 (C-18) is also recommended for detection of Derlin-2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Derlin-2 siRNA (h): sc-60521, Derlin-2 siRNA (m): sc-60522, Derlin-2 shRNA Plasmid (h): sc-60521-SH, Derlin-2 shRNA Plasmid (m): sc-60522-SH, Derlin-2 shRNA (h) Lentiviral Particles: sc-60521-V and Derlin-2 shRNA (m) Lentiviral Particles: sc-60522-V.

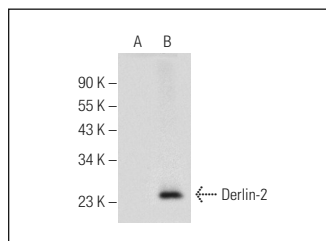
Molecular Weight of Derlin-2: 21 kDa.

Positive Controls: Derlin-2 (m): 293T Lysate: sc-125238.

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.

DATA



Derlin-2 (C-18): sc-50824. Western blot analysis of Derlin-2 expression in non-transfected: sc-117752 (A) and mouse Derlin-2 transfected: sc-125238 (B) 293T whole cell lysates.

RESEARCH USE

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

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Try **Derlin-2 (D-10): sc-398573** or **Derlin-2/3 (A-6): sc-390289**, our highly recommended monoclonal alternatives to Derlin-2 (C-18).