

# ERdj3 (C-7): sc-271240

## BACKGROUND

Members of the heat shock protein 40 (HSP 40) family of proteins all contain a highly conserved J domain that associates with HSP 70 and regulates the function of HSP 70 by activating its adenosine triphosphatase activity. ERdj3, an HSP 40 chaperone, is expressed in the ER lumen, where it interacts with BiP, a molecule involved in retrotranslocating proteins out of the ER. ERdj3 also associates with several other protein substrates, including unfolded light chains, a nonsecreted Ig light chain mutant and a VSV-G ts045 mutant. Shigatoxin (Stx) is a bacterial tool that enzymatically inactivates the 28S rRNA, inhibiting protein synthesis of infected cells. Stx also interacts with ERdj3 and Sec 61 to form a complex through which proteins are retro-translocated to the cytoplasm. ERdj3 may play a role in the ER quality control system.

## CHROMOSOMAL LOCATION

Genetic locus: DNAJB11 (human) mapping to 3q27.3; Dnajb11 (mouse) mapping to 16 B1.

## SOURCE

ERdj3 (C-7) is a mouse monoclonal antibody raised against amino acids 106-235 mapping within an internal region of ERdj3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ERdj3 (C-7) is available conjugated to agarose (sc-271240 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271240 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271240 PE), fluorescein (sc-271240 FITC), Alexa Fluor® 488 (sc-271240 AF488), Alexa Fluor® 546 (sc-271240 AF546), Alexa Fluor® 594 (sc-271240 AF594) or Alexa Fluor® 647 (sc-271240 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271240 AF680) or Alexa Fluor® 790 (sc-271240 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

ERdj3 (C-7) is recommended for detection of mature ERdj3 and DnaJ B11 precursor of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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). ERdj3 (C-7) is also recommended for detection of mature ERdj3 and DnaJ B11 precursor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ERdj3 siRNA (h): sc-60595, ERdj3 siRNA (m): sc-60596, ERdj3 shRNA Plasmid (h): sc-60595-SH, ERdj3 shRNA Plasmid (m): sc-60596-SH, ERdj3 shRNA (h) Lentiviral Particles: sc-60595-V and ERdj3 shRNA (m) Lentiviral Particles: sc-60596-V.

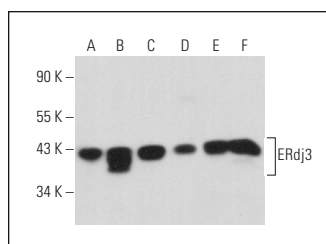
Molecular Weight of ERdj3: 40 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262, RT-4 whole cell lysate: sc-364257 or Raji whole cell lysate: sc-364236.

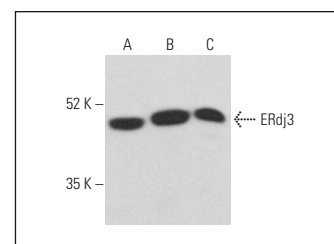
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



ERdj3 (C-7): sc-271240. Western blot analysis of ERdj3 expression in HeLa (A), MCF7 (B), U-251-MG (C), Caco-2 (D), Hep G2 (E) and Raji (F) whole cell lysates.



ERdj3 (C-7): sc-271240. Western blot analysis of ERdj3 expression in Caco-2 (A), RT-4 (B) and A-431 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

## SELECT PRODUCT CITATIONS

- Guo, F. and Snapp, E.L. 2013. ERdj3 regulates BiP occupancy in living cells. *J. Cell Sci.* 126: 1429-1439.
- Gomez-Pastor, R., et al. 2017. Abnormal degradation of the neuronal stress-protective transcription factor HSF1 in Huntington's disease. *Nat. Commun.* 8: 14405.
- Garreau, A., et al. 2017. Grb2-mediated recruitment of USP9X to LAT enhances thymic stability following thymic selection. *J. Immunol.* 199: 2758-2766.
- Pan, J., et al. 2018. The endoplasmic reticulum co-chaperone ERdj3/DNAJB11 promotes hepatocellular carcinoma progression through suppressing AATZ degradation. *Future Oncol.* 14: 3001-3013.
- Wang, F., et al. 2021. Temporal proteomics reveal specific cell cycle onco-protein downregulation by p97/VCP inhibition. *Cell Chem. Biol.* E-published.

## 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.

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