

ERH (C-6): sc-373906

BACKGROUND

ERH (enhancer of rudimentary homolog), also known as DROER, is a 104 amino acid transcriptional coregulator that is ubiquitously expressed and highly conserved among eukaryotes. ERH may play a role in cell cycle regulation and pyrimidine biosynthesis. ERH represses the function of the coactivator PCBD, preventing it from enhancing the activity of the tissue-specific transcription factor HNF-1 (hepatocyte nuclear factor-1). HNF-1 is a homeodomain transcription factor that binds DNA as a dimer and the HNF-1/DNA complex is stabilized by PCBD. By repressing PCBD, ERH disrupts the stability of the HNF-1/DNA complex, affecting the expression of multiple genes in the liver. The structure of ERH is characterized by a single domain consisting of three α -helices and four β -strands. ERH has a long flexible loop that is significantly conserved, suggesting that this loop region may be important for the function of ERH. ERH has two casein kinase II phosphorylation sites that are thought to disrupt the ability of ERH to dimerize.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 1996. Johns Hopkins University, Baltimore, MD. MIM Number: 601191. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Rhee, K.H., et al. 1997. The bifunctional protein DCoH modulates interactions of the homeodomain transcription factor HNF1 with nucleic acids. *J. Mol. Biol.* 265: 20-29.
3. Pogge von Strandmann, E., et al. 2001. ERH (enhancer of rudimentary homologue), a conserved factor identical between frog and human, is a transcriptional repressor. *Biol. Chem.* 382: 1379-1385.
4. Arai, R., et al. 2005. Crystal structure of an enhancer of rudimentary homolog (ERH) at 2.1 Angstroms resolution. *Protein Sci.* 14: 1888-1893.
5. Wan, C., et al. 2005. Structure of the conserved transcriptional repressor enhancer of rudimentary homolog. *Biochemistry* 44: 5017-5023.

CHROMOSOMAL LOCATION

Genetic locus: ERH (human) mapping to 14q24.1; Erh (mouse) mapping to 12 D1.

SOURCE

ERH (C-6) is a mouse monoclonal antibody raised against amino acids 1-104 representing full length ERH of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ERH (C-6) is available conjugated to agarose (sc-373906 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373906 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373906 PE), fluorescein (sc-373906 FITC), Alexa Fluor® 488 (sc-373906 AF488), Alexa Fluor® 546 (sc-373906 AF546), Alexa Fluor® 594 (sc-373906 AF594) or Alexa Fluor® 647 (sc-373906 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373906 AF680) or Alexa Fluor® 790 (sc-373906 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ERH (C-6) is recommended for detection of ERH of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for ERH siRNA (h): sc-92400, ERH siRNA (m): sc-144931, ERH shRNA Plasmid (h): sc-92400-SH, ERH shRNA Plasmid (m): sc-144931-SH, ERH shRNA (h) Lentiviral Particles: sc-92400-V and ERH shRNA (m) Lentiviral Particles: sc-144931-V.

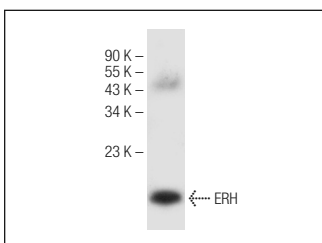
Molecular Weight of ERH: 12 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



ERH (C-6): sc-373906. Western blot analysis of ERH expression in IMR-32 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Švab, Ž., et al. 2021. High throughput miRNA screening identifies miR-574-3p hyperproductive effect in CHO cells. *Biomolecules* 11: 1125.

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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