

ERH (FL-104): sc-135360

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

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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.
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7. Lukasik, A., et al. 2008. Ciz1, a p21 cip1/Waf1-interacting zinc finger protein and DNA replication factor, is a novel molecular partner for human enhancer of rudimentary homolog. *FEBS J.* 275: 332-340.

CHROMOSOMAL LOCATION

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

SOURCE

ERH (FL-104) is a rabbit polyclonal antibody raised against amino acids 1-104 representing full length ERH of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ERH (FL-104) is recommended for detection of ERH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

ERH (FL-104) is also recommended for detection of ERH in additional species, including equine, canine, bovine, porcine and avian.

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 SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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