

# HCR (E-4): sc-365889

## BACKGROUND

HCR (coiled-coil  $\alpha$ -helical rod protein 1, putative gene 8 protein) is a 782 amino acid protein that is encoded by human gene CCHCR1. It is believed to be a regulator of keratinocyte proliferation or differentiation. HCR is a nuclear protein abundantly expressed in heart, liver, skeletal muscle, kidney and pancreas, and to a lesser extent in lung and placenta. HCR is overexpressed in keratinocytes of psoriatic lesions. HCR is associated with susceptibility to psoriasis, a chronic inflammatory dermatosis that affects approximately 2% of the population. Psoriasis is a multifactorial disease characterized by red, scaly skin lesions that are usually found on the scalp, elbows and knees, and may be associated with severe arthritis. The lesions are caused by hyperproliferative keratinocytes and infiltration of inflammatory cells into the dermis and epidermis. The usual age of onset of psoriasis is between 15 and 30, although it can present at any age. Association of HCR with psoriasis seem to be due to linkage disequilibrium with CW\*0602, however, HCR is unlikely to be directly involved in psoriasis development.

## REFERENCES

1. Asumalahti, K., et al. 2000. A candidate gene for psoriasis near HLA-C, HCR (Pg8), is highly polymorphic with a disease-associated susceptibility allele. *Hum. Mol. Genet.* 9: 1533-1542.
2. O'Brien, K.P., et al. 2001. The HCR gene on 6p21 is unlikely to be a psoriasis susceptibility gene. *J. Invest. Dermatol.* 116: 750-754.
3. Asumalahti, K., et al. 2002. Coding haplotype analysis supports HCR as the putative susceptibility gene for psoriasis at the MHC PSORS1 locus. *Hum. Mol. Genet.* 11: 589-597.

## CHROMOSOMAL LOCATION

Genetic locus: CCHCR1 (human) mapping to 6p21.33; Cchcr1 (mouse) mapping to 17 B1.

## SOURCE

HCR (E-4) is a mouse monoclonal antibody raised against amino acids 361-660 mapping within an internal region of HCR of human origin.

## PRODUCT

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

HCR (E-4) is available conjugated to agarose (sc-365889 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365889 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365889 PE), fluorescein (sc-365889 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365889 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365889 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365889 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365889 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365889 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365889 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

HCR (E-4) is recommended for detection of HCR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 HCR siRNA (h): sc-62447, HCR siRNA (m): sc-62448, HCR shRNA Plasmid (h): sc-62447-SH, HCR shRNA Plasmid (m): sc-62448-SH, HCR shRNA (h) Lentiviral Particles: sc-62447-V and HCR shRNA (m) Lentiviral Particles: sc-62448-V.

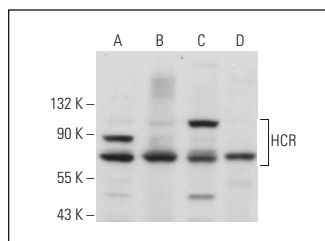
Molecular Weight of HCR isoforms 1/2: 86/99 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Caki-1 cell lysate: sc-2224 or Caco-2 cell lysate: sc-2262.

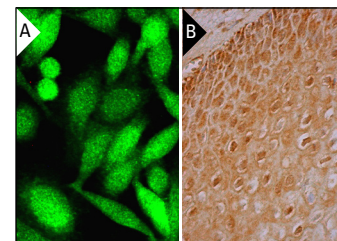
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



HCR (E-4): sc-365889. Western blot analysis of HCR expression in Jurkat (A), Caki-1 (B), Caco-2 (C) and T24 (D) whole cell lysates.



HCR (E-4): sc-365889. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human uterine cervix tissue showing cytoplasmic and nuclear staining of squamous epithelial cells (B).

## RESEARCH USE

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

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