**BACKGROUND**

HCR (coiled-coil α-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 arthropitis. 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**


**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 381-660 mapping within an internal region of HCR of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1, 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 µg/0.25 ml. HCR (E-4) is recommended for detection of HCR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:1000-1:10000), 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), 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:


**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 5W480 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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.