



HCR (m): 293T Lysate: sc-120724

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 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., Laitinen, T., Itkonen-Vatjus, R., Lokki, M.L., Suomela, S., Snellman, E., Saarialho-Kere, U. and Kere, J. 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., Holm, S.J., Nilsson, S., Carlén, L., Rosenmüller, T., Enerbäck, C., Inerot, A. and Ståhle-Bäckdahl, M. 2001. The HCR gene on 6p21 is unlikely to be a psoriasis susceptibility gene. *J. Invest. Dermatol.* 116: 750-754.
3. Asumalahti, K., Veal, C., Laitinen, T., Suomela, S., Allen, M., Elomaa, O., Moser, M., de Cid, R., Ripatti, S., Vorechovsky, I., Marcusson, J.A., Nakagawa, H., Lazaro, C., Estivill, X., Capon, F., Novelli, G., Saarialho-Kere, U., Barker, J., Trembath, R. and Kere, J. 2002. Coding haplotype analysis supports HCR as the putative susceptibility gene for psoriasis at the MHC PSORS1 locus. *Hum. Mol. Genet.* 11: 589-597.
4. Suomela, S., Elomaa, O., Asumalahti, K., Kariniemi, A.L., Karvonen, S.L., Peltonen, J., Kere, J. and Saarialho-Kere, U. 2003. HCR, a candidate gene for psoriasis, is expressed differently in psoriasis and other hyperproliferative skin disorders and is downregulated by interferon- γ in keratinocytes. *J. Invest. Dermatol.* 121: 1360-1364.
5. Chang, Y.T., Shiao, Y.M., Chin, P.J., Liu, Y.L., Chou, F.C., Wu, S., Lin, Y.F., Li, L.H., Lin, M.W., Liu, H.N. and Tsai, S.F. 2004. Genetic polymorphisms of the HCR gene and a genomic segment in close proximity to HLA-C are associated with patients with psoriasis in Taiwan. *Br. J. Dermatol.* 150: 1104-1111.
6. Kere, J. 2005. Mapping and identifying genes for asthma and psoriasis. *Philos. Trans. R. Soc. Lond. B Biol. Sci.* 360: 1551-1561.
7. Chang, Y.T., Chou, C.T., Shiao, Y.M., Lin, M.W., Yu, C.W., Chen, C.C., Huang, C.H., Lee, D.D., Liu, H.N., Wang, W.J. and Tsai, S.F. 2006. Psoriasis vulgaris in Chinese individuals is associated with PSORS1C3 and CDSN genes. *Br. J. Dermatol.* 155: 663-669.

CHROMOSOMAL LOCATION

Genetic locus: Cchcr1 (mouse) mapping to 17 B1.

PRODUCT

HCR (m): 293T Lysate represents a lysate of mouse HCR transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

HCR (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HCR antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.