

HCCR-1 (G-14): sc-161696

BACKGROUND

HCCR-1 (human cervical cancer oncogene 1), also known as HCCR-2 or LETMD1, is a 360 amino acid single-pass membrane protein that is expressed in the kidney, liver, skeletal muscle, heart and brain. It is suggested that HCCR-1 may be involved in tumorigenesis and may function as a negative regulator of the p53 tumor suppressor. Overexpression of HCCR-1 may cause mitochondrial dysfunction that can lead to UVC or staurosporine-induced apoptosis resistance and progression of tumor formation. HCCR-1 is considered a candidate biomarker for breast cancer. Various human tumors, including leukemia, lymphoma and carcinomas of the breast, kidney, ovary, stomach, colon and uterine cervix, consist of high levels of HCCR-1. Six isoforms exist due to alternative splicing events.

REFERENCES

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3. Jung, S.S., et al. 2005. The HCCR oncoprotein as a biomarker for human breast cancer. *Clin. Cancer Res.* 11: 7700-7708.
4. Cho, G.W., et al. 2006. The phosphatidylinositol 3-kinase/Akt pathway regulates the HCCR-1 oncogene expression. *Gene* 384: 18-26.
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7. Ha, S.A., et al. 2008. HCCRB-1 directly interacting with HCCR-1 induces tumorigenesis through p53 stabilization. *Int. J. Cancer* 122: 501-508.
8. Ha, S.A., et al. 2009. Oncoprotein HCCR-1 expression in breast cancer is well correlated with known breast cancer prognostic factors including the HER2 overexpression, p53 mutation, and ER/PR status. *BMC Cancer* 9: 51.

CHROMOSOMAL LOCATION

Genetic locus: LETMD1 (human) mapping to 12q13.12; Letmd1 (mouse) mapping to 15 F1.

SOURCE

HCCR-1 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HCCR-1 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-161696 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HCCR-1 (G-14) is recommended for detection of HCCR-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HCCR-1 (G-14) is also recommended for detection of HCCR-1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for HCCR-1 siRNA (h): sc-95839, HCCR-1 siRNA (m): sc-145903, HCCR-1 shRNA Plasmid (h): sc-95839-SH, HCCR-1 shRNA Plasmid (m): sc-145903-SH, HCCR-1 shRNA (h) Lentiviral Particles: sc-95839-V and HCCR-1 shRNA (m) Lentiviral Particles: sc-145903-V.

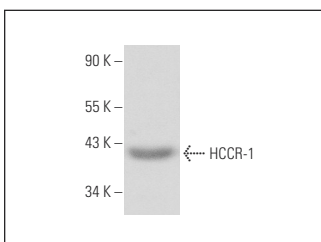
Molecular Weight of HCCR-1: 39 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HCCR-1 (G-14): sc-161696. Western blot analysis of HCCR-1 expression in mouse skeletal muscle tissue extract.

RESEARCH USE

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