

# RCL (FL-174): sc-135385

## BACKGROUND

RCL is a 174 amino acid protein that belongs to the deoxyribonucleoside 5'-monophosphate N-glycosidase family. It is suggested that the RCL protein plays a role during cellular proliferation and c-Myc-mediated transformation. RCL is expressed at high levels in heart, kidney, liver, skeletal muscle and spleen, low levels in brain, colon, lung, peripheral blood leukocytes, placenta, small intestine and thymus, and overexpressed in a significant proportion of breast cancers. Localizing to nucleus and cytoplasm, expression of RCL is induced by ER81. The RCL gene is conserved in chimpanzee, canine, mouse, rat and zebrafish, and maps to human chromosome 6p21.1. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6.

## REFERENCES

- Lewis, B.C., et al. 1997. Identification of putative c-Myc-responsive genes: characterization of rcl, a novel growth-related gene. *Mol. Cell. Biol.* 17: 4967-4978.
- Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.
- Safadi, S.S. and Shaw, G.S. 2007. A disease state mutation unfolds the parkin ubiquitin-like domain. *Biochemistry* 46: 14162-14169.
- Park, E., et al. 2007. Modulation of parkin gene expression in noradrenergic neuronal cells. *Int. J. Dev. Neurosci.* 25: 491-497.
- Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.
- Shin, S., et al. 2008. Rcl is a novel ETV1/ER81 target gene upregulated in breast tumors. *J. Cell. Biochem.* 105: 866-874.

## CHROMOSOMAL LOCATION

Genetic locus: DNP1 (human) mapping to 6p21.1; BC048355 (mouse) mapping to 17 C.

## SOURCE

RCL (FL-174) is a rabbit polyclonal antibody raised against amino acids 1-174 representing full length RCL of human origin.

## PRODUCT

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

## STORAGE

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

## APPLICATIONS

RCL (FL-174) is recommended for detection of RCL 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).

Suitable for use as control antibody for RCL siRNA (h): sc-95242, RCL siRNA (m): sc-152773, RCL shRNA Plasmid (h): sc-95242-SH, RCL shRNA Plasmid (m): sc-152773-SH, RCL shRNA (h) Lentiviral Particles: sc-95242-V and RCL shRNA (m) Lentiviral Particles: sc-152773-V.

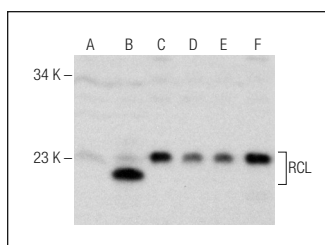
Molecular Weight of RCL: 19 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, RCL (m): 293T Lysate: sc-123034 or K-562 whole cell lysate: sc-2203.

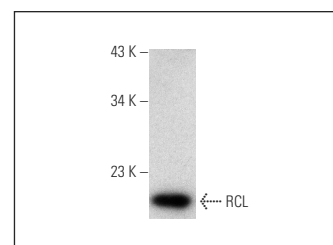
## RECOMMENDED SECONDARY REAGENTS

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.

## DATA



RCL (FL-174): sc-135385. Western blot analysis of RCL expression in non-transfected: sc-117752 (A) and mouse RCL transfected: sc-123034 (B) 293T whole cell lysates and HeLa (C), K-562 (D), Jurkat (E) and MCF7 (F) nuclear extracts.



RCL (FL-174): sc-135385. Western blot analysis of RCL expression in Hep G2 whole cell lysate.

## RESEARCH USE

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

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Try **RCL (C-8): sc-365682** or **RCL (A-7): sc-365683**, our highly recommended monoclonal alternatives to RCL (FL-174).