

# FLVCR (M-115): sc-134921

## BACKGROUND

FLVCR is a 555 amino acid protein encoded by the human gene FLVCR. It is a multi-pass membrane bound protein that belongs to the major facilitator superfamily, feline leukemia virus subgroup C receptor (TC 2.A.1.28.1) family. FLVCR is responsible for the exportation of cytoplasmic heme groups. It is believed that it may protect developing erythroid cells from heme toxicity. Expression of FLVCR in cells will cause susceptibility to FeLV-C (feline leukemia virus subgroup C) *in vitro*. FLVCR is found in all hematopoietic tissues, including peripheral blood lymphocytes and fetal liver, and some expression is found in pancreas and kidney. It is down-regulated in haemopoietic progenitor cells undergoing differentiation and hemoglobinization.

## REFERENCES

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3. Quigley, J.G., Yang, Z., Worthington, M.T., Phillips, J.D., Sabo, K.M., Sabath, D.E., Berg, C.L., Sassa, S., Wood, B.L. and Abkowitz, J.L. 2004. Identification of a human heme exporter that is essential for erythropoiesis. *Cell* 118: 757-766.
4. Lucas, M.L., Seidel, N.E., Porada, C.D., Quigley, J.G., Anderson, S.M., Malech, H.L., Abkowitz, J.L., Zanjani, E.D. and Bodine, D.M. 2005. Improved transduction of human sheep repopulating cells by retrovirus vectors pseudotyped with feline leukemia virus type C or RD114 envelopes. *Blood* 106: 51-58.
5. Quigley, J.G., Gazda, H., Yang, Z., Ball, S., Sieff, C.A. and Abkowitz, J.L. 2005. Investigation of a putative role for FLVCR, a cytoplasmic heme exporter, in Diamond-Blackfan anemia. *Blood Cells Mol. Dis.* 35: 189-192.

## CHROMOSOMAL LOCATION

Genetic locus: FLVCR1 (human) mapping to 1q32.3; Mfsd7b (mouse) mapping to 1 H6.

## SOURCE

FLVCR (M-115) is a rabbit polyclonal antibody raised against amino acids 1-115 mapping at the N-terminus of FLVCR of mouse 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

FLVCR (M-115) is recommended for detection of FLVCR of mouse, rat and, to a lesser extent, 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 FLVCR siRNA (h): sc-62324, FLVCR siRNA (m): sc-145201. FLVCR shRNA Plasmid (h): sc-62324-SH, FLVCR shRNA Plasmid (m): sc-145201-SH, FLVCR shRNA (h) Lentiviral Particles: sc-62324-V and FLVCR shRNA (m) Lentiviral Particles: sc-145201-V.

Molecular Weight of glycosylated FLVCR form: 72 kDa.

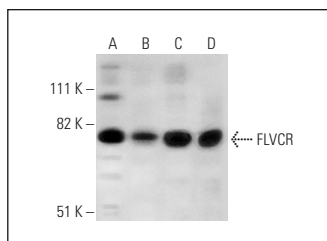
Molecular Weight of non-glycosylated FLVCR form: 55 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or M1 whole cell lysate: sc-364782.

## 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



FLVCR (M-115): sc-134921. Western blot analysis of FLVCR expression in HeLa (A), NIH/3T3 (B), K-562 (C) and M1 (D) whole cell lysates.

## RESEARCH USE

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



Try **FLVCR (C-4): sc-390100**, our highly recommended monoclonal alternative to FLVCR (M-115).