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# FLVC2 Antibody (C-term)

**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP9680b**

## Specification

### FLVC2 Antibody (C-term) - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | Q9UPI3 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **57241** |
| Antigen Region | **478-507** |

### FLVC2 Antibody (C-term) - Additional Information

**Gene ID** 55640

**Other Names**
Feline leukemia virus subgroup C receptor-related protein 2, Calcium-chelate transporter, CCT, FLVCR2, C14orf58

**Target/Specificity**
This FLVC2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 478-507 amino acids from the C-terminal region of human FLVC2.

**Dilution**
WB~~1:1000

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
FLVC2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### FLVC2 Antibody (C-term) - Protein Information

**Name** FLVCR2 {ECO:0000303|PubMed:20823265, ECO:0000312|HGNC:HGNC:20105}

**Function** Choline uniporter that specifically mediates choline uptake at the blood-brain-barrier (PubMed:38302740, PubMed:38778100). Responsible for the majority of choline uptake across the

blood-brain- barrier from the circulation into the brain (By similarity). Choline, a nutrient critical for brain development, is a precursor of phosphatidylcholine, as well as betaine (By similarity). Also mediates transport of ethanolamine (PubMed:38778100). Choline and ethanolamine transport is not coupled with proton transport and is exclusively driven by the choline gradient across the plasma membrane (PubMed:38778100). However, the presence of an inwardly directed proton gradient enhances choline uptake (By similarity). Also acts as a heme b transporter (PubMed:20823265, PubMed:32973183). Required to regulate mitochondrial respiration processes, ATP synthesis and thermogenesis (PubMed:32973183). At low heme levels, interacts with components of electron transfer chain (ETC) complexes and ATP2A2, leading to ubiquitin-mediated degradation of ATP2A2 and inhibition of thermogenesis (PubMed:32973183). Upon heme binding, dissociates from ETC complexes to allow switching from mitochondrial ATP synthesis to thermogenesis (PubMed:32973183).

**Cellular Location**
Cell membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=Present on both luminal (blood-facing) and abluminal (brain-facing) sides of brain endothelial cell plasma membranes, with higher luminal membrane expression (By similarity) Also localizes in mitochondria where it interacts with components of the electron transfer complexes III, IV and V (PubMed:32973183) Colocalizes with ATP2A2 at the mitochondrial-ER contact junction (PubMed:32973183). {ECO:0000250|UniProtKB:Q91X85, ECO:0000269|PubMed:32973183}

**Tissue Location**
Expressed in non-hematopoietic tissues, with relative abundant expression in brain, placenta, lung, liver and kidney (PubMed:20823265). Also expressed in hematopoietic tissues (fetal liver, spleen, lymph node, thymus, leukocytes and bone marrow) (PubMed:20823265). Found in acidophil cells of the pituitary that secrete growth hormone and prolactin (at protein level) (PubMed:14729055).

## FLVC2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## FLVC2 Antibody (C-term) - Images

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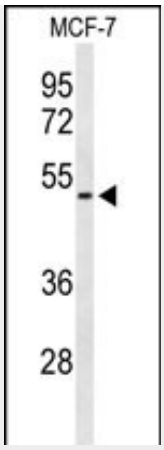


Western blot analysis of FLVC2 Antibody (C-term) (Cat. #AP9680b) in MCF-7 cell line lysates (35ug/lane). FLVC2 (arrow) was detected using the purified Pab.

**FLVC2 Antibody (C-term) - Background**

The FLVCR2 gene encodes a transmembrane protein that belongs to the major facilitator superfamily of secondary carriers that transport small solutes in response to chemiosmotic ion gradients, such as calcium.

**FLVC2 Antibody (C-term) - References**

Meyer, E., et al. Am. J. Hum. Genet. 86(3):471-478(2010)
Brown, J.K., et al. J. Virol. 80(4):1742-1751(2006)
Brasier, G., et al. Exp. Cell Res. 293(1):31-42(2004)
Heilig, R., et al. Nature 421(6923):601-607(2003)