

## Product datasheet

# Anti-SLC1A5 antibody ab84903

★★★★☆ 1 Abreviews 1 References 3 Images

### Overview

<b>Product name</b>	Anti-SLC1A5 antibody
<b>Description</b>	Rabbit polyclonal to SLC1A5
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, ICC/IF, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat, Sheep, Cow, Monkey
<b>Immunogen</b>	Synthetic peptide conjugated to KLH derived from within residues 200 - 300 of Human SLC1A5. Read Abcam's proprietary immunogen policy (Peptide available as <a href="#">ab97988</a> .)
<b>Positive control</b>	This antibody gave a positive signal in Jurkat whole cell lysate.
<b>General notes</b>	immunogen sequence is aa244-265 (ALRKLGPEGELLIRFFNSFNEA)

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab84903** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
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Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★☆	Use a concentration of 1 µg/ml. Detects a band of approximately 52 kDa (predicted molecular weight: 56 kDa).

## Target

### Function

Sodium-dependent amino acids transporter that has a broad substrate specificity, with a preference for zwitterionic amino acids. It accepts as substrates all neutral amino acids, including glutamine, asparagine, and branched-chain and aromatic amino acids, and excludes methylated, anionic, and cationic amino acids. May also be activated by insulin. Through binding of the fusogenic protein syncytin-1/ERVW-1 may mediate trophoblasts syncytialization, the spontaneous fusion of their plasma membranes, an essential process in placental development (PubMed:10708449, PubMed:23492904). Acts as a cell surface receptor for feline endogenous virus RD114, baboon M7 endogenous virus and type D simian retroviruses (PubMed:10051606, PubMed:10196349).

### Tissue specificity

Placenta, lung, skeletal muscle, kidney, pancreas, and intestine.

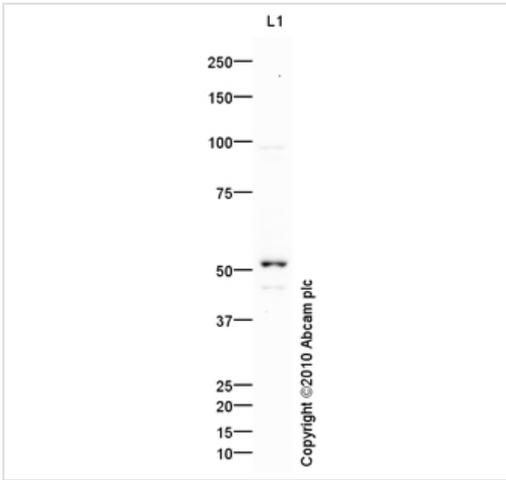
### Sequence similarities

Belongs to the dicarboxylate/amino acid:cation symporter (DAACS) (TC 2.A.23) family. SLC1A5 subfamily.

### Cellular localization

Cell membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

## Images



Western blot - Anti-SLC1A5 antibody (ab84903)

Anti-SLC1A5 antibody (ab84903) at 1  $\mu$ g/ml +  
Jurkat (Human T cell lymphoblast-like cell line)  
Whole Cell Lysate at 10  $\mu$ g

**Secondary**

Goat polyclonal to Rabbit IgG - H&L - Pre-  
Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

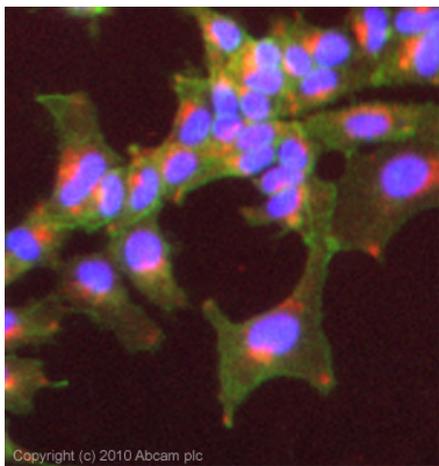
**Predicted band size:** 56 kDa

**Observed band size:** 52 kDa

**Additional bands at:** 45 kDa, 97 kDa. We  
are unsure as to the identity of these extra  
bands.

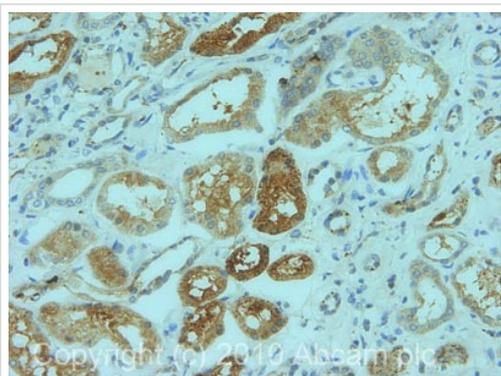
**Exposure time:** 20 minutes

The 52 kDa band observed is comparable to  
the molecular weight seen with other  
commercially available antibodies to Human  
Neutral amino acid transporter B (SLC1A5).



Immunocytochemistry/ Immunofluorescence - Anti-SLC1A5 antibody (ab84903)

ICC/IF image of ab84903 stained Hek293 cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab84903, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in 4% PFA fixed (10 min) HepG2 and MCF7 cells at 5µg/ml, and in 100% methanol fixed (5 min) Hek293, HepG2 and MCF7 cells at 5µg/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SLC1A5 antibody (ab84903)

IHC image of SLC1A5 staining in human normal kidney formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab84903, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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