

## Datasheet: AHP1164

<b>Description:</b>	RABBIT ANTI HUMAN SLC5A3 (C-TERMINAL)
<b>Specificity:</b>	SLC5A3 (C-TERMINAL)
<b>Other names:</b>	SMIT-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	50 µg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			10 - 30 ug/ml
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays			▪	

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Antiserum Preparation</b>	Antisera to SLC5A3 were raised by repeated immunisations of rabbit with highly purified antigen. Purified IgG prepared by affinity chromatography.
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )

## Stabilisers

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**Approx. Protein Concentrations** IgG concentration 1.0mg/ml

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**Immunogen** Synthetic peptide corresponding to the C-terminal domain of human SLC5A3, conjugated to KLH.

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## External Database Links

**UniProt:**

[P53794](#)   [Related reagents](#)

**Entrez Gene:**

[6526](#)   SLC5A3   [Related reagents](#)

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**RRID** AB\_2189567

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**Specificity** **Rabbit anti Human SLC5A3 antibody** detects epitopes within the C-terminal region of sodium-dependent myo-inositol cotransporter-1 (SLC5A3), also known as SMIT-1. SLC5A3 is a ~80 kDa membrane associated transporter which is expressed in many human tissues including the brain, kidney and placenta. It is up-regulated in hypertonic conditions and functions in cellular osmoregulation by regulating myo-inositol (MI) uptake. MI is the precursor for phosphatidylinositol and its derivatives, all of which have functions in signal transduction.

Up-regulation of SLC5A3 may be associated with an increased risk for bipolar I disorder, and is also thought to be a factor in the pathophysiology of Down syndrome.

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## Histology Positive Control Tissue

Spinal cord.

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## Further Reading

1. Mallee, J.J. *et al.* (1997) The structural organization of the human Na<sup>+</sup>/myo-inositol cotransporter (SLC5A3) gene and characterization of the promoter. [Genomics. 46 \(3\): 459-65.](#)
  2. Chau, J.F. *et al.* (2005) Sodium/myo-inositol cotransporter-1 is essential for the development and function of the peripheral nerves. [FASEB J. 19 \(13\): 1887-9.](#)
  3. Willmroth, F. *et al.* (2007) Sodium-myoinositol co-transporter (SMIT-1) mRNA is increased in neutrophils of patients with bipolar 1 disorder and down-regulated under treatment with mood stabilizers. [Int J Neuropsychopharmacol. 10 \(1\): 63-71.](#)
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## Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee** 12 months from date of despatch

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**Health And Safety** Material Safety Datasheet documentation #10040 available at:

**Information** 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)  
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)  
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)  
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®680](#), [DyLight®800](#)

### Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000A\)](#)  
[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)  
[100x ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025C\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M363826:200529'

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