

Datasheet: AHP1164

**BATCH NUMBER 160329**

<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 µg/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 Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<b>Immunogen</b>	Synthetic peptide corresponding to the C-terminal domain of human SLC5A3, conjugated to KLH.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P53794</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">6526</a>    SLC5A3    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2189567
<b>Specificity</b>	<p><b>Rabbit anti Human SLC5A3 antibody</b> 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.</p> <p>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.</p>
<b>Histology Positive Control Tissue</b>	Spinal cord.
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>1. Mallee, J.J. <i>et al.</i> (1997) The structural organization of the human Na<sup>+</sup>/myo-inositol cotransporter (SLC5A3) gene and characterization of the promoter. <a href="#">Genomics. 46 (3): 459-65.</a></li> <li>2. Chau, J.F. <i>et al.</i> (2005) Sodium/myo-inositol cotransporter-1 is essential for the development and function of the peripheral nerves. <a href="#">FASEB J. 19 (13): 1887-9.</a></li> <li>3. Willmroth, F. <i>et al.</i> (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. <a href="#">Int J Neuropsychopharmacol. 10 (1): 63-71.</a></li> </ol>
<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>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.</p>
<b>Guarantee</b>	12 months from date of despatch

**Health And Safety Information**      Material Safety Datasheet documentation #10040 available at:  
<https://www.bio-rad-antibodies.com/SDS/AHP1164>  
10040

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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](#)  
Sheep Anti Rabbit IgG (STAR35...)      [RPE](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

### Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

<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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