

Datasheet: OBT1655

**BATCH NUMBER 166535**

<b>Description:</b>	MOUSE ANTI Na <sup>+</sup> /H <sup>+</sup> EXCHANGER-1
<b>Specificity:</b>	Na <sup>+</sup> /H <sup>+</sup> EXCHANGER-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	4E9
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 mg

## 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		▪		
ELISA			▪	
Immunoprecipitation		▪		
Western Blotting	▪			1/500

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.

### Target Species

Pig

### Species Cross Reactivity

Reacts with: Rabbit, Fish, Mouse, Rat, Salamander

Based on sequence similarity, is expected to react with: Vertebrates

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### Product Form

Purified IgG - liquid

### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture

supernatant

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<b>Buffer Solution</b>	Phosphate buffered saline
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<b>Preservative Stabilisers</b>	0.1% Sodium Azide (NaN <sub>3</sub> )
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<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
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<b>Immunogen</b>	Maltose binding protein fusion protein containing the entire C-terminal, hydrophilic domain of porcine NHE1.
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<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P48762</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">397458</a> SLC9A1 <a href="#">Related reagents</a>
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<b>Synonyms</b>	NHE1
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<b>RRID</b>	AB_609778
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<b>Specificity</b>	<b>Mouse anti Porcine sodium/hydrogen exchanger 1 antibody, clone 4E9</b> recognizes the Na <sup>+</sup> /H <sup>+</sup> exchanger-1 (NHE1), a membrane protein involved in pH regulation and signal transduction. Mouse anti Porcine sodium/hydrogen exchanger 1 antibody, clone 4E9 recognizes NHE1 from the salamander <i>Amphiuma tridactylum</i> ( <a href="#">McLean et al. 1999</a> ) and in the flounder <i>Pseudopleuronectes americanus</i>
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<b>Western Blotting</b>	OBT1655 detects a band of approximately 100 kDa in human kidney lysates.
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<b>References</b>	<ol style="list-style-type: none"><li>1. Rutherford, P.A. <i>et al.</i> (1997) Expression of Na<sup>(+)</sup>-H<sup>+</sup> exchanger isoforms NHE1 and NHE3 in kidney and blood cells of rabbit and rat. <a href="#">Exp Nephrol. 5 (6): 490-7.</a></li><li>2. McLean LA <i>et al.</i> (1999) Cloning and expression of the Na<sup>+</sup>/H<sup>+</sup> exchanger from <i>Amphiuma</i> RBCs: resemblance to mammalian NHE1. <a href="#">Am J Physiol. 276 (5 Pt 1): C1025-37.</a></li><li>3. Biemesderfer, D. <i>et al.</i> (1999) Specific association of megalin and the Na<sup>+</sup>/H<sup>+</sup> exchanger isoform NHE3 in the proximal tubule. <a href="#">J Biol Chem. 274 (25): 17518-24.</a></li><li>4. Claiborne, J.B. <i>et al.</i> (1999) A mechanism for branchial acid excretion in marine fish: identification of multiple Na<sup>+</sup>/H<sup>+</sup> antiporter (NHE) isoforms in gills of two seawater teleosts. <a href="#">J Exp Biol. 202: 315-24.</a></li><li>5. Liu, F. &amp; Gesek, F.A. (2001) alpha(1)-Adrenergic receptors activate NHE1 and NHE3 through distinct signaling pathways in epithelial cells. <a href="#">Am J Physiol Renal Physiol. 280 (3): F415-25.</a></li><li>6. Choe, K.P. <i>et al.</i> (2002) Immunological detection of Na<sup>(+)</sup>/H<sup>(+)</sup> exchangers in the gills of a hagfish, <i>Myxine glutinosa</i>, an elasmobranch, <i>Raja erinacea</i>, and a teleost, <i>Fundulus heteroclitus</i>. <a href="#">Comp Biochem Physiol A Mol Integr Physiol. 131: 375-85.</a></li></ol>
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7. Goyal, S. *et al.* (2003) Renal expression of novel Na<sup>+</sup>/H<sup>+</sup> exchanger isoform NHE8. [Am J Physiol Renal Physiol. 284 \(3\): F467-73.](#)
8. Pedersen, S.F. *et al.* (2003) Molecular cloning of NHE1 from winter flounder RBCs: activation by osmotic shrinkage, cAMP, and calyculin A. [Am J Physiol Cell Physiol. 284 \(6\): C1561-76.](#)

**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

**Guarantee** 12 months from date of despatch

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/OBT1655>  
10040

**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

Goat Anti Mouse IgG (STAR76...) [RPE](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#), [DyLight@650](#), [DyLight@680](#), [DyLight@800](#), [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<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)  
'M381654:210512'

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