

Datasheet: OBT1655

Description:	MOUSE ANTI Na ⁺ /H ⁺ EXCHANGER-1
Specificity:	Na ⁺ /H ⁺ EXCHANGER-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	4E9
Isotype:	IgG1
Quantity:	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.

	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.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.1% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Maltose binding protein fusion protein containing the entire C-terminal, hydrophilic domain of

porcine NHE1.

External Database Links	UniProt: P48762 Related reagents
	Entrez Gene: 397458 SLC9A1 Related reagents
Synonyms	NHE1
Specificity	Mouse anti Porcine sodium/hydrogen exchanger 1 antibody, clone 4E9 recognizes the Na⁺/H⁺ 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> (McLean et al. 1999) and in the flounder <i>Pseudopleuronectes americanus</i>
Western Blotting	OBT1655 detects a band of approximately 100 kDa in human kidney lysates.
References	1. Rutherford, P.A. <i>et al.</i> (1997) Expression of Na(+)-H+ exchanger isoforms NHE1 and NHE3 in kidney and blood cells of rabbit and rat. Exp Nephrol. 5 (6): 490-7. 2. Choe, K.P. <i>et al.</i> (2002) Immunological detection of Na(+)/H(+) exchangers in the gills of a hagfish, <i>Myxine glutinosa</i>, an elasmobranch, <i>Raja erinacea</i>, and a teleost, <i>Fundulus heteroclitus</i>. Comp Biochem Physiol A Mol Integr Physiol. 131: 375-85. 3. Claiborne, J.B. <i>et al.</i> (1999) A mechanism for branchial acid excretion in marine fish: identification of multiple Na+/H+ antiporter (NHE) isoforms in gills of two seawater teleosts. J Exp Biol. 202: 315-24. 4. Biemesderfer, D. <i>et al.</i> (1999) Specific association of megalin and the Na+/H+ exchanger isoform NHE3 in the proximal tubule. J Biol Chem. 274 (25): 17518-24. 5. McLean LA <i>et al.</i> (1999) Cloning and expression of the Na+/H+ exchanger from <i>Amphiuma</i> RBCs: resemblance to mammalian NHE1. Am J Physiol. 276 (5 Pt 1): C1025-37. 6. Pedersen, S.F. <i>et al.</i> (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. 7. Liu, F. & Gesek, F.A. (2001) alpha(1)-Adrenergic receptors activate NHE1 and NHE3 through distinct signaling pathways in epithelial cells. Am J Physiol Renal Physiol. 280 (3): F415-25. 8. Goyal, S. <i>et al.</i> (2003) Renal expression of novel Na+/H+ exchanger isoform NHE8. Am J Physiol Renal Physiol. 284 (3): F467-73.
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.
Shelf Life	12 months from date of despatch.
Health And Safety Information	Material Safety Datasheet Documentation #10303 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10303.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Human Anti Mouse IgG1 (HCA036...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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