

Store at
-20C
#79350**NCX1 (D3F3H) Rabbit mAb**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 110	Source/Isotype: Rabbit IgG	UniProt ID: #P32418	Entrez-Gene Id: 6546
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

NCX1 (D3F3H) Rabbit mAb recognizes endogenous levels of total NCX1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein corresponding to human NCX1 protein.

Background

NCX1 (Na⁺/Ca²⁺ exchanger, isoform 1) belongs to a conserved family of sodium-calcium membrane antiporter proteins that play a fundamental role in regulating intracellular calcium levels (1). NCX1 facilitates transmembrane transport of Ca²⁺ ions in exchange for Na⁺ ions in response to electrochemical gradients (2). Due to its relatively low affinity for calcium, NCX1 most commonly functions to export Ca²⁺ under acute conditions of high intracellular Ca²⁺. Notably however, NCX1 is a reversible antiporter, and can thus facilitate Ca²⁺ influx under specialized physiological circumstances (3). Research studies have shown that NCX1 is particularly important for regulating intracellular Ca²⁺ levels in excitatory cell types (e.g., neurons, cardiac muscle). For example, conditional knockout of NCX1 in mouse cardiac pacemaker cells identified a critical role for NCX1 in the initiation and maintenance of cardiac rhythm (4).

Background References

- Sharma, V. and O'Halloran, D.M. (2014) *Genesis* 52, 93-109.
- Yu, S.P. and Choi, D.W. (1997) *Eur J Neurosci* 9, 1273-81.
- Lytton, J. (2007) *Biochem J* 406, 365-82.
- Herrmann, S. et al. (2013) *Cardiovasc Res* 99, 780-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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