

Revision 1

Store at
-20C
#98354**NMNAT1 (D7O4N) Rabbit mAb**
Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	29	Rabbit IgG	#Q9HAN9	64802

Product Usage Information**Application**Western Blotting
Immunoprecipitation**Dilution**1:1000
1:100**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

NMNAT1 (D7O4N) Rabbit mAb recognizes endogenous levels of total NMNAT1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala268 of human NMNAT1 protein.

Background

Nicotinamide mononucleotide adenyl transferases (NMNATs) catalyze the reversible reaction of ATP with NaMN (nicotinic acid mononucleotide) or NMN (nicotinamide mononucleotide) to produce NaAD (nicotinic acid adenine dinucleotide) or NAD (nicotinamide adenine dinucleotide). NAD is an essential cofactor or substrates for many enzymes like PARP1 and Sirt1 that regulate diverse cellular processes including oxidative reactions and transcription. NMNATs maintain NAD levels for internal homeostasis (1,2). NMNAT1 is localized to the nucleus and loss-of-function mutant in mice causes embryonic lethality (3). In humans, several different NMNAT1 mutations are associated with Leber congenital amaurosis (LCA), the most common cause of inherited childhood blindness (4-7).

Background References

- Jayaram, H.N. et al. (2011) *Curr Med Chem* 18, 1962-72.
- Ali, Y.O. et al. (2013) *Trends Neurosci* 36, 632-40.
- Conforti, L. et al. (2011) *FEBS J* 278, 2666-79.
- Chiang, P.W. et al. (2012) *Nat Genet* 44, 972-4.
- Koenekoop, R.K. et al. (2012) *Nat Genet* 44, 1035-9.
- Perrault, I. et al. (2012) *Nat Genet* 44, 975-7.
- Falk, M.J. et al. (2012) *Nat Genet* 44, 1040-5.

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 **IP:** Immunoprecipitation**Cross-Reactivity Key****H:** Human**Trademarks and Patents**

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