

NAF-1/CISD2 (D4X4E) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	15	Rabbit IgG	#Q8N5K1	493856

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

NAF-1/CISD2 (D4X4E) Rabbit mAb recognizes endogenous levels of total NAF-1/CISD2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu70 of human NAF-1/CISD2 protein.

Background

Nutrient-deprivation autophagy factor-1 (NAF-1) (also known as CISD2, CDGSH iron-sulfur domain-containing protein 2) is a member of NEET family of 2Fe-2S proteins, characterized by a unique CDGSH sequence at their Fe-S-cluster-binding domain (1). NAF-1/CISD2 is a multifunctional protein. In addition to its role in iron and ROS homeostasis, it has been shown to play a role in autophagy, neurodegenerative diseases, and aging (1-6). Enhanced expression of NAF-1/CISD2 is associated with many types of cancer. Silencing of NAF-1/CISD2 expression in cancer cells significantly inhibited proliferation and tumorigenicity; while overexpression of NAF-1/CISD2 significantly enhanced proliferation (2,7,8).

Background References

1. Tamir, S. et al. (2015) *Biochim Biophys Acta* 1853, 1294-315.
2. Chang, N.C. et al. (2012) *Autophagy* 8, 856-7.
3. Lipper, C.H. et al. (2015) *PLoS One* 10, e0139699.
4. Du, X. et al. (2015) *Cell Biol Int* 39, 816-23.
5. Chen, Y.F. et al. (2009) *Genes Dev* 23, 1183-94.
6. Chen, Y.F. et al. (2010) *Ann N Y Acad Sci* 1201, 58-64.
7. Yang, L. et al. (2016) *Oncotarget* 7, 22720-32.
8. Holt, S.H. et al. (2016) *J Cell Sci* 129, 155-65.

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 nonfat dry milk, 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 **M:** Mouse **R:** Rat

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