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MINA Antibody

Catalog # ASC11072

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q8IUF8
Other Accession	NP_694822, 110227621
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	52800
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MINA antibody can be used for detection of MINA by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	84864
Other Names	Bifunctional lysine-specific demethylase and histidyl-hydroxylase MINA, 1.14.11.-, 60S ribosomal protein L27a histidine hydroxylase, Histone lysine demethylase MINA, MYC-induced nuclear antigen, Mineral dust-induced gene protein, Nucleolar protein 52, Ribosomal oxygenase MINA, ROX, MINA (HGNC:19441)
Target/Specificity	MINA;
Reconstitution & Storage	MINA antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	MINA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RIOX2 (HGNC:19441)
Function	Oxygenase that can act as both a histone lysine demethylase and a ribosomal histidine hydroxylase. Is involved in the demethylation of trimethylated 'Lys-9' on histone H3 (H3K9me3), leading to an increase in ribosomal RNA expression. Also catalyzes the hydroxylation of 60S ribosomal protein L27a on 'His-39'. May play an important role in cell growth and survival. May be involved in ribosome biogenesis, most likely during the

	assembly process of pre-ribosomal particles.
Cellular Location	Nucleus. Nucleus, nucleolus
Tissue Location	Expressed in liver, skeletal muscle, heart, pancreas, and placenta. Not detected in brain, lung or kidney Expressed in several lung cancer tissues, but is barely detected in the adjacent non-cancerous tissues. Also highly expressed in several esophageal squamous cell carcinoma (ESCC), and colon cancer tissues, and in various cancer cell lines.

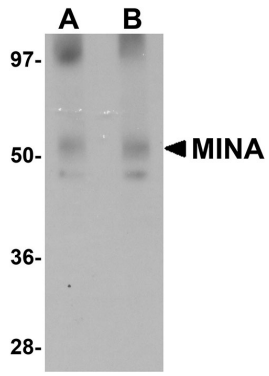
Background

MINA Antibody: MINA is nuclear localized, myc-inducible protein that is thought to play a role in mammalian cell proliferation. Treatment of cancer cells lines such as the colon cancer cell line SW680 with siRNA against MINA inhibits cell growth, demonstrating that MINA may be a potential therapeutic target. MINA regulates several genes related to cell adhesion and metabolism that have also been shown to be regulated by c-Myc, but also regulates other genes whose expression are not modulated by c-Myc such as EGFR, IL-6 and HGF. MINA has also been found to act as a repressor to IL-4 expression in T cells, indicating that it may also play a role in T cell differentiation and genetic variation in T helper type 2 bias.

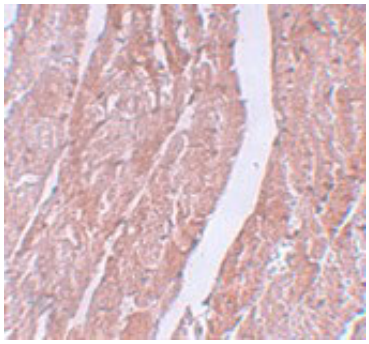
References

Tsuneoka M, Kody Y, Soejima M, et al. A novel myc target gene, mina53, that is involved in cell proliferation. J. Biol. Chem.2002; 277:35450-9.
Teye K, Tsuneoka M, Arima N, et al. Increased expression of a Myc target gene Mina53 in human colon cancer. Am. J. Pathol.2004; 164:205-16.
Komiya K, Sueoka-Aragane N, Sato A, et al. Mina53, a novel c-Myc target gene, is frequently expressed in lung cancers and exerts oncogenic property in NIH/3T3 cells. J. Cancer Res. Clin. Oncol.2010; 136:465-73.
Okamoto M, Van Stry M, Chung L, et al. Mina, an IL4 repressor, controls T helper type 2 bias. Nat. Immunol.2009; 10:872-9.

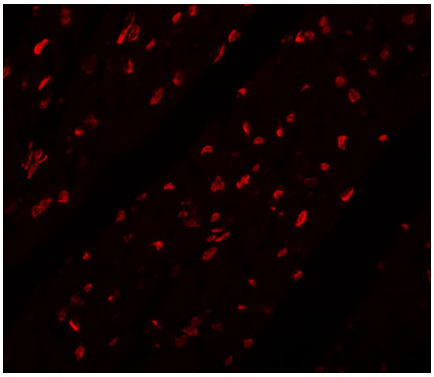
Images



Western blot analysis of MINA in human heart tissue lysate with MINA antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of MINA in mouse heart tissue with MINA antibody at 5 µg/mL.



Immunofluorescence of MINA in mouse heart tissue with MINA antibody at 20 µg/mL.