

HIG1 Antibody

Catalog # ASC11375

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q9Y241
Other Accession	NP_001093138 , 153085461
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	10143
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	HIG1 antibody can be used for detection of HIG1 by Western blot at 0.5 - 1 μ g/mL. Antibody can also be used for immunocytochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 10 μ g/mL.

Additional Information

Gene ID	25994
Other Names	HIG1 domain family member 1A, mitochondrial, Hypoxia-inducible gene 1 protein, RCF1 homolog A, RCF1a, HIGD1A, HIG1
Target/Specificity	HIGD1A; HIG1 antibody is predicted to not cross-react with HIG2
Reconstitution & Storage	HIG1 antibody can be stored at 4°C for three months and -20°C, 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	HIG1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HIGD1A
Synonyms	HIG1
Function	Proposed subunit of cytochrome c oxidase (COX, complex IV), which is the terminal component of the mitochondrial respiratory chain that catalyzes the reduction of oxygen to water. May play a role in the assembly of respiratory supercomplexes.
Cellular Location	Mitochondrion membrane {ECO:0000255 PROSITE- ProRule:PRU00836, ECO:0000269 PubMed:22342701}; Multi-pass membrane protein

Background

HIG1 Antibody: HIG1 and HIG2 (Hypoxia-inducible gene 1 and 2, respectively) are known to be induced by hypoxic conditions. HIG1 is induced by hypoxia and by glucose deprivation in cultured cells. In addition, tumor xenografts derived from human cervical cancer cells display increased expression of HIG1 and HIG2 when they are deprived of oxygen. Unlike HIG2, which is ubiquitously expressed and might be an activator and target of the canonical Wnt pathway, the function and the mechanisms underlying its regulation of HIG1 still remained unknown. The putative link between hypoxia and an oncogenic signaling pathway might play an important role in tumorigenesis.

References

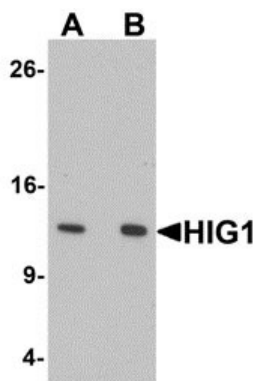
Bedo G, Vargas M, Ferreiro MJ, et al. Characterization of hypoxia induced gene 1: expression during rat central nervous system maturation and evidence of antisense RNA expression. *Int. J. Dev. Biol.* 2005; 49:431-6.

Simpson JC, Wellenreuther R, Poustka A, et al. Systematic subcellular localization of novel proteins identified by large-scale cDNA sequencing. *EMBO Rep.* 2000; 1:287-92.

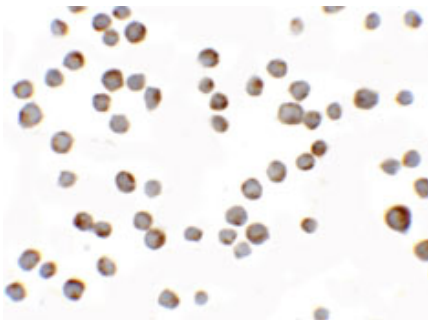
Denko NC, Schindler C, Koong A, et al. Epigenetic regulation of gene expression in cervical cancer cells by the tumor microenvironment. *Clin. Cancer Res.* 2000; 6:480-7.

Gimm T, Wiese M, Teschemacher B, et al. Hypoxia-inducible protein 2 is a novel lipid droplet protein and a specific target gene of hypoxia-inducible factor-1. *FASEB J.* 2010; 24:4443-58.

Images

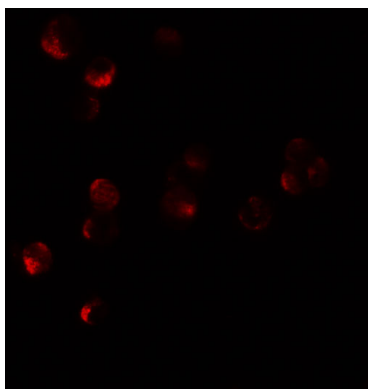


Western blot analysis of HIG1 in 293 cell lysate with HIG1 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunocytochemistry of HIG1 in 293 cells with HIG1 antibody at 2.5 µg/mL.

Immunofluorescence of HIG1 in 293 cells tissue with HIG1 antibody at 10 µg/mL.



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