

HIG1 Antibody
Catalog # ASC11375**Specification**

HIG1 Antibody - Product Information

Application	WB, ICC, IF
Primary Accession	O9Y241
Other Accession	NP_001093138 , 153085461
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	HIG1 antibody can be used for detection of HIG1 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 2.5 µg/mL. For immunofluorescence start at 10 µg/mL.

HIG1 Antibody - Additional Information

Gene ID	25994
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.

HIG1 Antibody - 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 {ECO:0000255|PROSITE-ProRule:PRU00836, ECO:0000269|PubMed:22342701}. Mitochondrion

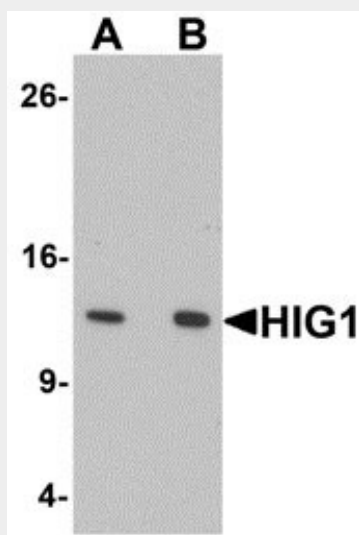
inner membrane

HIG1 Antibody - Protocols

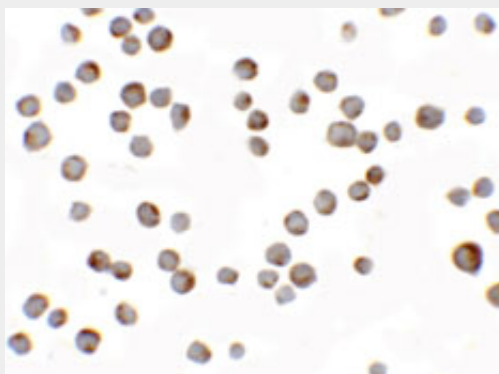
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

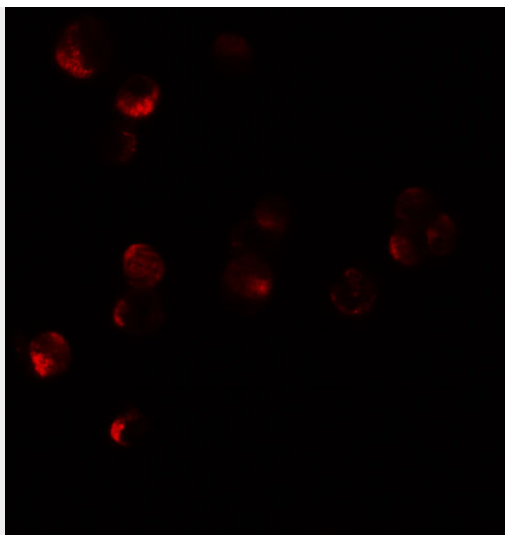
HIG1 Antibody - Images



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



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



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

HIG1 Antibody - 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.

HIG1 Antibody - 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.