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# HIG2 Antibody

Catalog # ASC11376

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q9BW72 |
| **Other Accession** | NP_001092256, 20270389 |
| **Reactivity** | Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 11529 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | HIG2 antibody can be used for detection of HIG2 by Western blot at 1 g/mL. |

## Additional Information

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| **Gene ID** | 192286 |
| **Other Names** | HIG1 domain family member 2A, mitochondrial, RCF1 homolog B, RCF1b, HIGD2A |
| **Target/Specificity** | HIGD2A; At least two isoforms of HIG2 are known to exist; this antibody will detect both isoforms. HIG2 antibody is predicted to not cross-react with HIG1 |
| **Reconstitution & Storage** | HIG2 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** | HIG2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | HIGD2A |
| **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 be involved in cytochrome c oxidase activity. 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 |

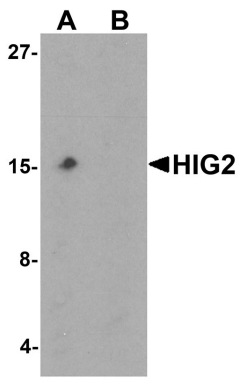
## Background

HIG2 Antibody: HIG1 and HIG2 (Hypoxia-inducible gene 1 and 2, respectively) are known to be induced by hypoxic conditions. HIG2 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 HIG2 in 3T3 cell lysate with HIG2 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.