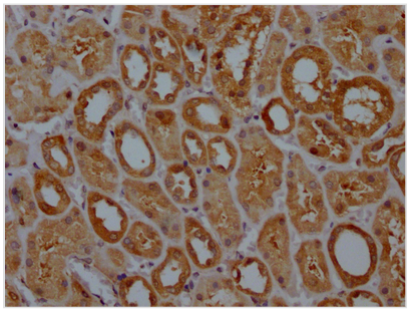
GPX4 Antibody

Product Code	CSB-RA188594A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P36969
Immunogen	A synthesized peptide derived from human GPX4
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	Protects cells against membrane lipid peroxidation and cell death. Required for normal sperm development and male fertility. Could play a major role in protecting mammals from the toxicity of ingested lipid hydroperoxides. Essential for embryonic development. Protects from radiation and oxidative damage. Essential for maturation and survival of photoreceptor cells. Plays a role in a primary T cell response to viral and parasitic infection by protecting T cells from ferroptosis, a cell death resulting from an iron-dependent accumulation of lipid reactive oxygen species, and by supporting T cell expansion.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Metabolism; Signal transduction
Gene Names	GPX4
Accession NO.	9D4

Image



IHC image of CSB-RA188594A0HU diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

GPX4 is a selenoprotein glutathione peroxidase that reduces highly hazardous lipid hydroperoxides in membranes to less toxic lipid alcohols using glutathione as an electron donor. GPX4 is a leading inhibitor of ferroptosis due to its unique function to reduce complex hydroperoxides including phospholipid hydroperoxides and cholesterol hydroperoxides to their corresponding counterparts, thereby blocking the lipid peroxidation chain reaction. Studies have shown that GPX4 is a necessary enzyme for motor neuron health and survival.

Genes for GPX4 antibody's heavy and light chains were cloned into plasma vectors, which were subsequently transfected into mammalian cells for expression. The resulting product is the recombinant GPX4 antibody. This recombinant GPX4 antibody was subsequently purified from the culture medium of transfected host cell lines through A synthesized peptide derived from human GPX4. It has verified to detect GPX4 protein Human in the ELISA, IHC.