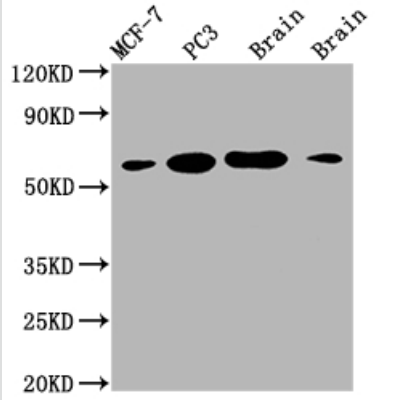
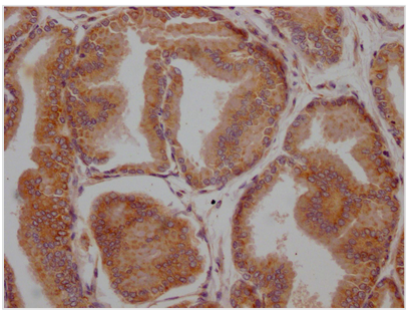
LOXL2 Antibody

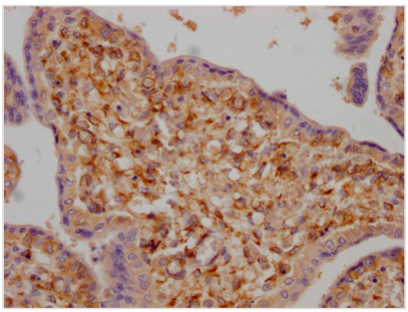
Product Code	CSB-RA907007A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q9Y4K0
Immunogen	A synthesized peptide derived from human LOXL2
Species Reactivity	Human, Mouse, Rat
Tested Applications	ELISA, WB, IHC, IF, FC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200, FC:1:20-1:200
Relevance	Mediates the post-translational oxidative deamination of lysine residues on target proteins leading to the formation of deaminated lysine (allysine). When secreted in extracellular matrix, promotes cross-linking of extracellular matrix proteins by mediating oxidative deamination of peptidyl lysine residues in precursors to fibrous collagen and elastin. Acts as a regulator of sprouting angiogenesis, probably via collagen IV scaffolding. When nuclear, acts as a transcription corepressor and specifically mediates deamination of trimethylated 'Lys-4' of histone H3 (H3K4me3), a specific tag for epigenetic transcriptional activation. Involved in epithelial to mesenchymal transition (EMT) via interaction with SNAI1 and participates in repression of E-cadherin, probably by mediating deamination of histone H3. Also involved in E-cadherin repression following hypoxia, a hallmark of epithelial to mesenchymal transition believed to amplify tumor aggressiveness, suggesting that it may play a role in tumor progression. Acts as a regulator of chondrocyte differentiation, probably by regulating expression of factors that control chondrocyte differentiation.
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; Signal transduction
Gene Names	LOXL2
Accession NO.	2E5
Image	



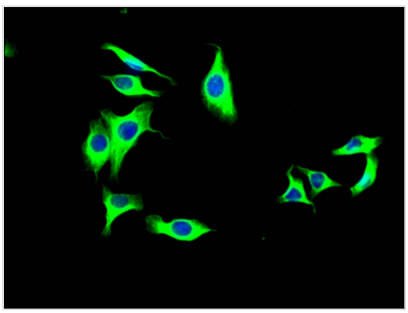
Western Blot
Positive WB detected in: MCF-7 whole cell lysate, PC3 whole cell lysate, Mouse brain tissue, Rat brain tissue
All lanes: LOXL2 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 87 kDa
Observed band size: 53 kDa



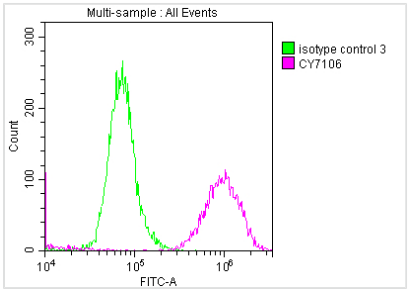
IHC image of CSB-RA907007A0HU diluted at 1:100 and staining in paraffin-embedded human prostate tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at 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.



IHC image of CSB-RA907007A0HU diluted at 1:100 and staining in paraffin-embedded human placenta 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.



Immunofluorescence staining of HepG2 Cells with CSB-RA907007A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).



Overlay histogram showing A549 cells stained with CSB-RA907007A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followedby the antibody (1µg/1*106cells) for 1 h at 4°C.The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4°C. Control antibody (green line) was Rabbit IgG (1µg/1*106cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The DNA sequence coding for the LOXL2 monoclonal antibody produced from the animals with recombinant human LOXL2 immunization was cloned into the expression vector, which was further transfected into a cell line for in vitro expression. The product is the recombinant LOXL2 monoclonal antibody. It specifically recognizes and detects the LOXL2 from human, mouse, and rat samples. It belongs to the rabbit IgG. The affinity-chromatography purification method was used to purify this LOXL2 antibody. This LOXL2 antibody has been validated for use in ELISA, WB, IHC, IF, and FC analyses.

Similar to LOX, LOXL2 promotes the cross-linking of collagen and elastin in the extracellular matrix (ECM). LOXL2 is also involved in the regulation of signaling pathways inside or outside the cell. Disorders of LOXL2 lead to diverse diseases, such as fibrosis, heart disease, and cancer. The expression and function of LOXL2 in tumor progression vary among tissue types. Over-expression of LOXL2 promotes tumor metastasis.