

**Catalase rabbit pAb****Cat#: orb766760 (Manual)**

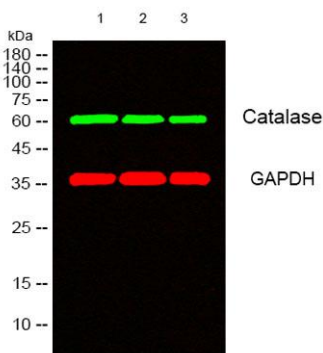
For research use only. Not intended for diagnostic use.

<b>Product Name</b>	Catalase rabbit pAb
<b>Host species</b>	Rabbit
<b>Applications</b>	IF;WB;IHC;ELISA
<b>Species Cross-Reactivity</b>	Human;Rat;Mouse;;Fish
<b>Recommended dilutions</b>	IF: 1:50-200 Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications.
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from the C-terminal region of human CAT. AA range:478-527
<b>Specificity</b>	Catalase Polyclonal Antibody detects endogenous levels of Catalase protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide..
<b>Storage</b>	Store at -20°C. Avoid repeated freeze-thaw cycles.
<b>Protein Name</b>	Catalase
<b>Gene Name</b>	CAT
<b>Cellular localization</b>	Peroxisome.
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Clonality</b>	Polyclonal

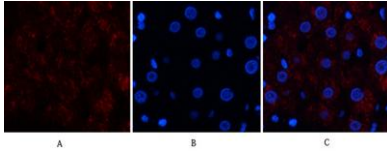
<b>Concentration</b>	1 mg/ml
<b>Observed band</b>	60kD
<b>Human Gene ID</b>	847
<b>Human Swiss-Prot Number</b>	P04040
<b>Alternative Names</b>	CAT; Catalase

## Background

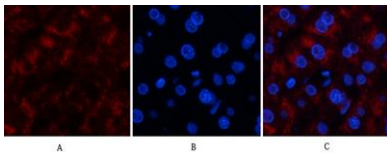
This gene encodes catalase, a key antioxidant enzyme in the bodies defense against oxidative stress. Catalase is a heme enzyme that is present in the peroxisome of nearly all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thereby mitigates the toxic effects of hydrogen peroxide. Oxidative stress is hypothesized to play a role in the development of many chronic or late-onset diseases such as diabetes, asthma, Alzheimer's disease, systemic lupus erythematosus, rheumatoid arthritis, and cancers. Polymorphisms in this gene have been associated with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene. [provided by RefSeq, Oct 2009],



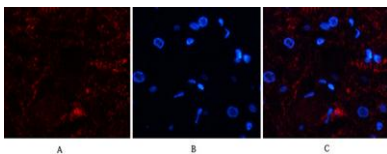
Western blot analysis of lysates from 1) HT29, 2) A549, 3) HELA cells, ( Green ) primary antibody was diluted at 1:1000, 4° over night, secondary antibody (cat:RS23920) was diluted at 1:10000, 37° 1hour. ( Red ) GAPDH Monoclonal Antibody(2B8) (cat:YM3029) antibody was diluted at 1:5000 as loading control, 4° over night, secondary antibody (cat:RS23710) was diluted at 1:10000, 37° 1hour.



**Immunofluorescence analysis of human-liver tissue.** 1, Catalase Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



**Immunofluorescence analysis of human-liver tissue.** 1, Catalase Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



**Immunofluorescence analysis of human-kidney-cancer tissue.** 1, Catalase Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B