

## Product datasheet for **TA502564**

### Catalase (CAT) Mouse Monoclonal Antibody [Clone ID: OTI1B8]

#### Product data:

|                         |  |
|-------------------------|--|
| Product Type:           | Primary Antibodies   |
| Clone Name:             | OTI1B8   |
| Applications:           | FC, IF, IHC, WB  |
| Recommended Dilution:   | WB 1:500~2000, IHC 1:150, IF 1:100, FLOW 1:100   |
| Reactivity:             | Human, Monkey, Mouse, Rat  |
| Host:                   | Mouse  |
| Isotype:                | IgG1   |
| Clonality:              | Monoclonal   |
| Immunogen:              | Full length human recombinant protein of human CAT (NP_111743) produced in HEK293T cell.   |
| Formulation:            | PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.   |
| Concentration:          | 1 mg/ml  |
| Purification:           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)  |
| Conjugation:            | Unconjugated   |
| Storage:                | Store at -20°C as received.  |
| Stability:              | Stable for 12 months from date of receipt.   |
| Predicted Protein Size: | 59.6 kDa   |
| Gene Name:              | catalase   |
| Database Link:          | <a href="#">NP_001743</a><br><a href="#">Entrez Gene 12359 Mouse</a> <a href="#">Entrez Gene 24248 Rat</a> <a href="#">Entrez Gene 717406 Monkey</a> <a href="#">Entrez Gene 847 Human</a><br><a href="#">P04040</a> |



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**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]

**Synonyms:**

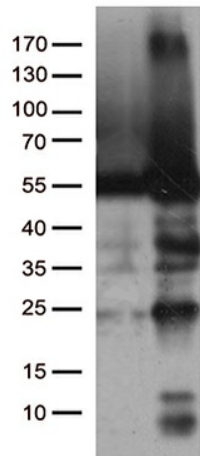
MGC138422; MGC138424

**Protein Families:**

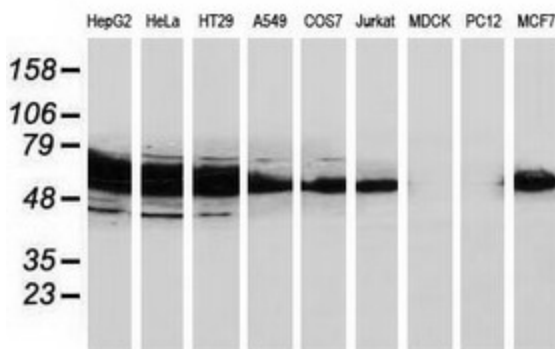
Druggable Genome

**Protein Pathways:**

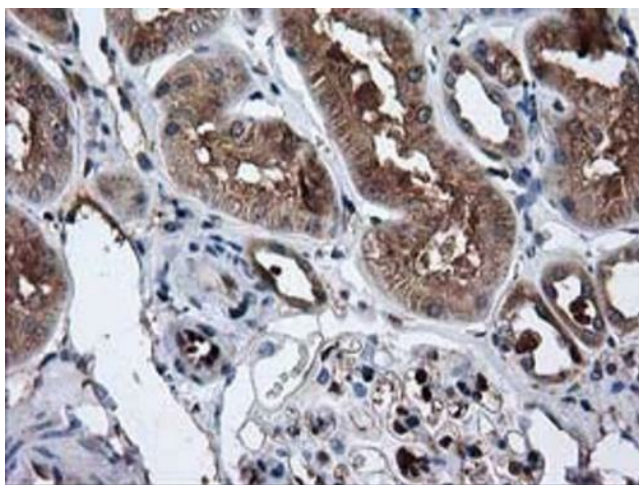
Amyotrophic lateral sclerosis (ALS), Metabolic pathways, Methane metabolism, Tryptophan metabolism

**Product images:**


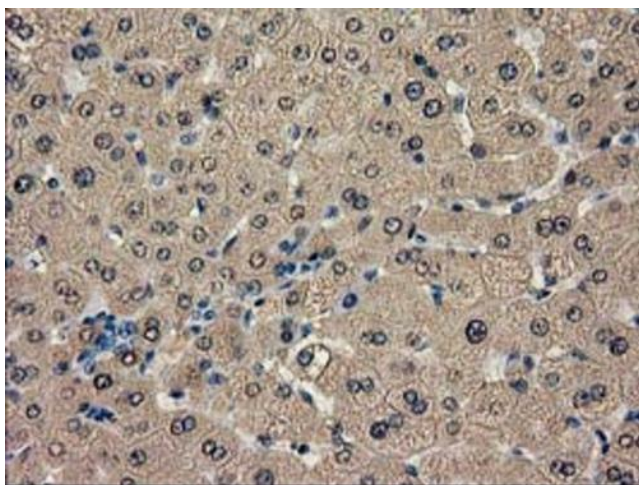
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CAT ([RC210763], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CAT. (1:5. Positive lysates [LY419766] (100ug) and [LC419766] (20ug) can be purchased separately from OriGene.



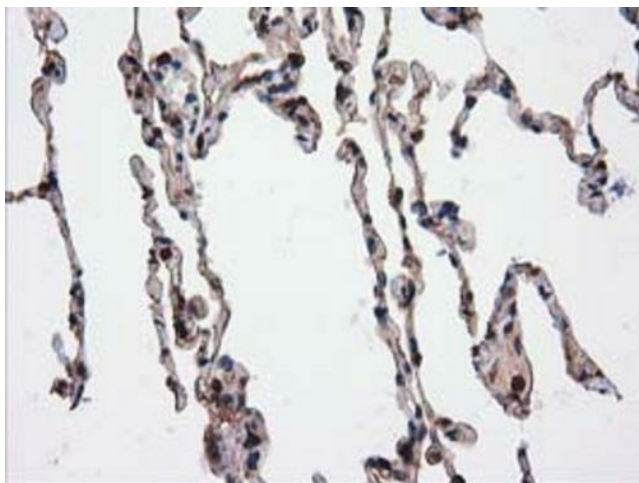
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-CAT monoclonal antibody (1:500).



Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

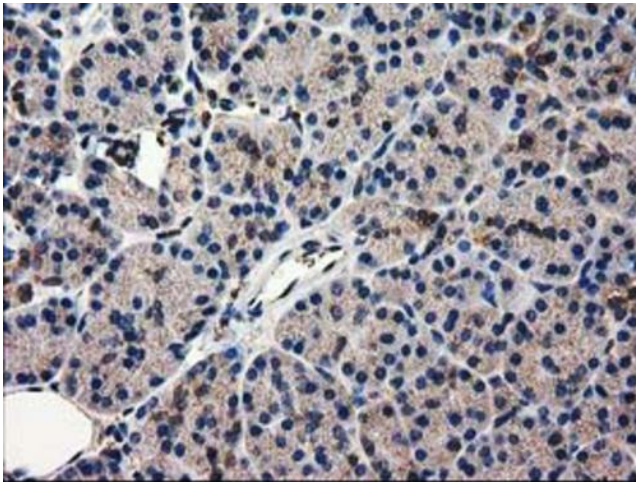


Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

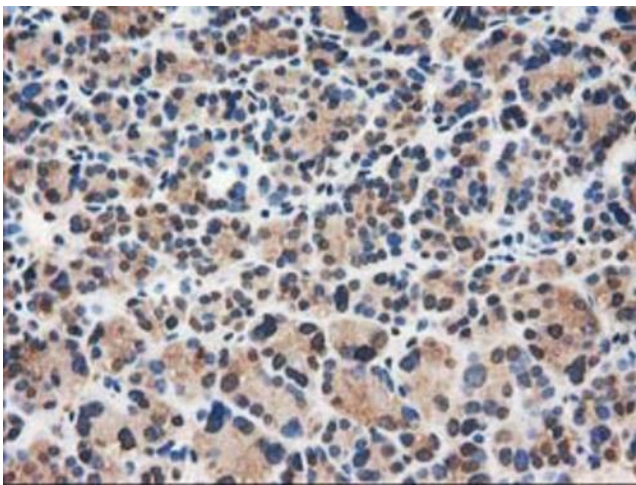


Immunohistochemical staining of paraffin-embedded Human lung tissue within the normal limits using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

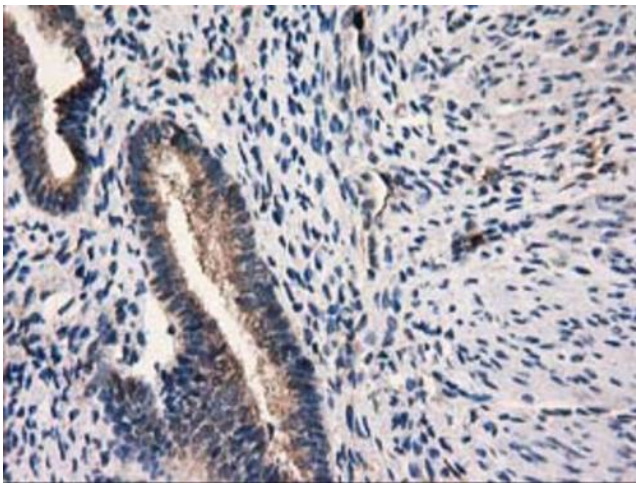




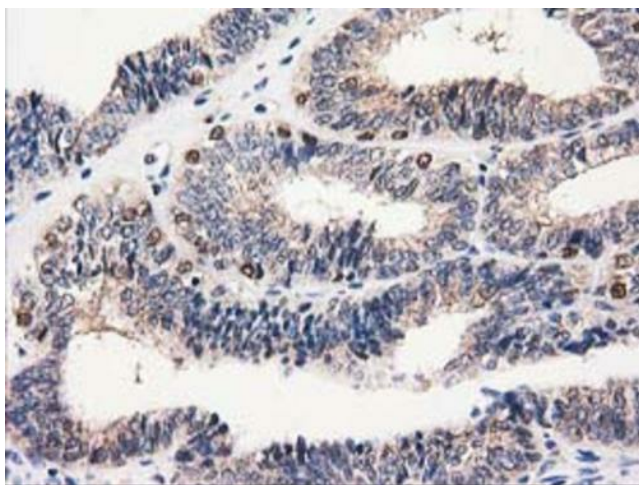
Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



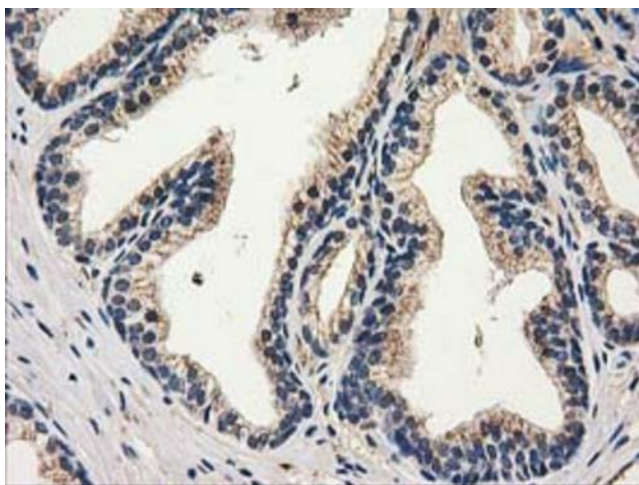
Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



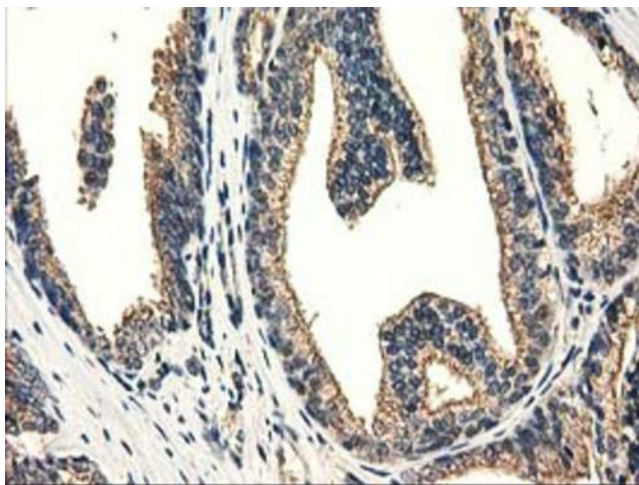
Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

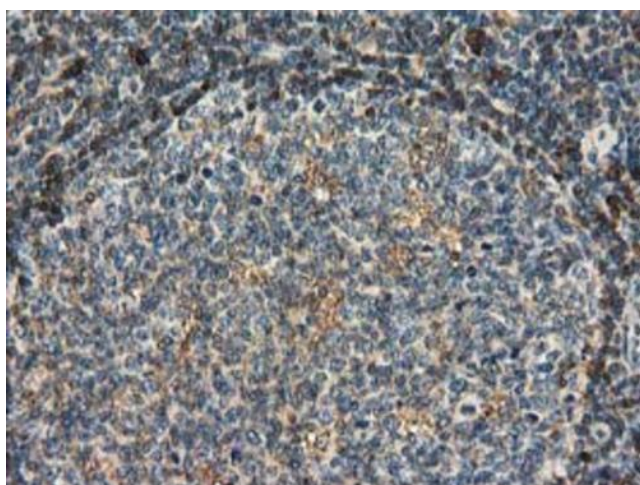


Immunohistochemical staining of paraffin-embedded Human prostate tissue within the normal limits using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

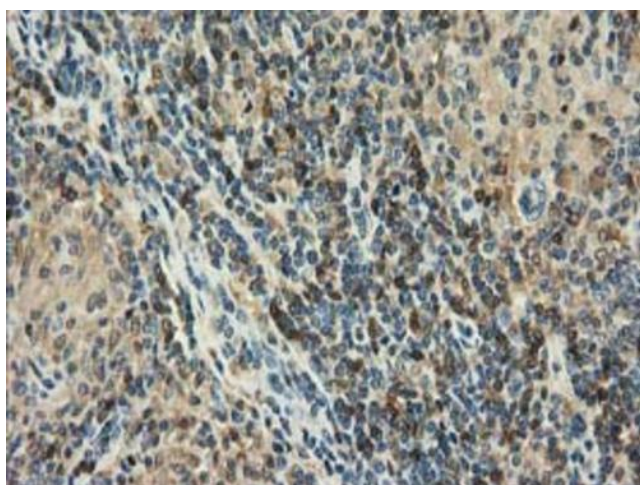


Immunohistochemical staining of paraffin-embedded Carcinoma of Human prostate tissue using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

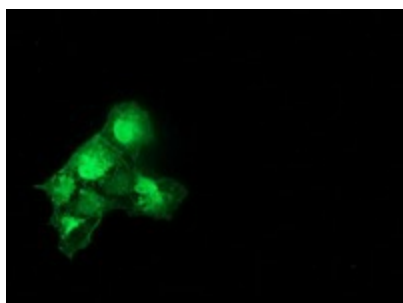




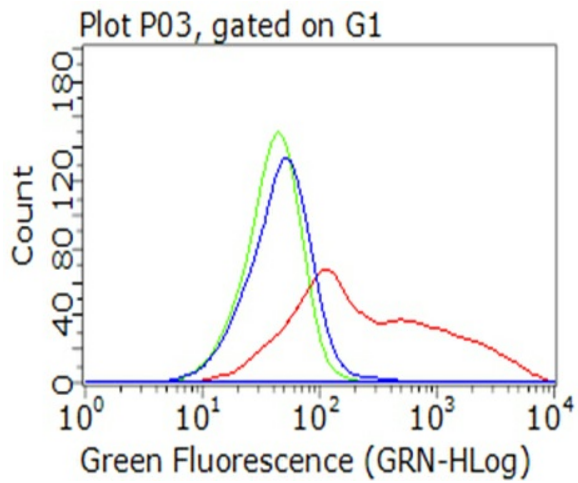
Immunohistochemical staining of paraffin-embedded Human lymph node tissue within the normal limits using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



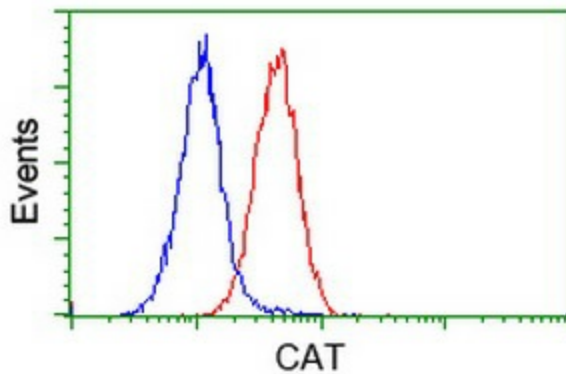
Immunohistochemical staining of paraffin-embedded Human lymphoma tissue using anti-CAT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



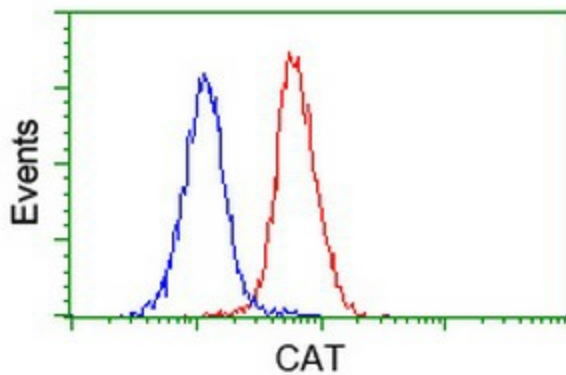
Anti-CAT mouse monoclonal antibody (TA502564) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY CAT ([RC210763]).



HEK293T cells transfected with either [RC210763] overexpress plasmid (Red), compared to an IgG isotype control, (Green) or empty vector control plasmid (Blue) were immunostained by anti-CAT antibody (TA502564), and then analyzed by flow cytometry (1:100).



Flow cytometric Analysis of HeLa cells, using anti-CAT antibody (TA502564), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).



Flow cytometric Analysis of Jurkat cells, using anti-CAT antibody (TA502564), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).