Anti-Superoxide Dismutase 1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R011975

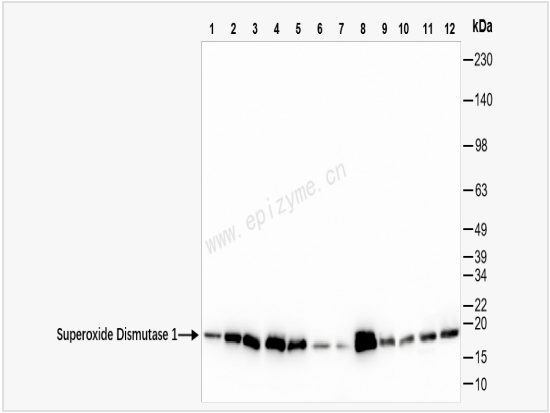
Product Information

Application	WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	81M16M80
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Superoxide Dismutase 1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Superoxide Dismutase 1 Rabbit mAb [81M16M80] is for research use only and not for use in diagnostic or therapeutic procedures.

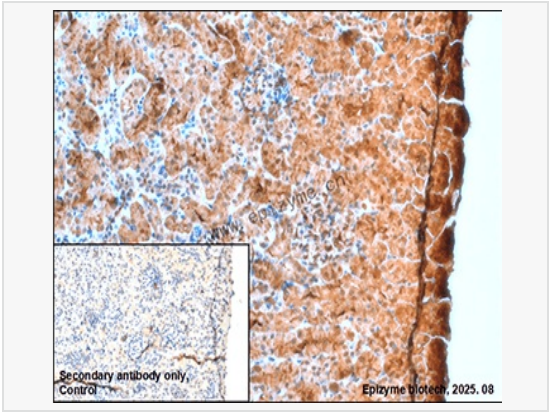
Protein Information

Synonyms	Superoxide dismutase [Cu-Zn]; Superoxide dismutase 1; hSod1; SOD1.
Calculated MW	Calculated MW: 16 kDa; Observed MW: 18 kDa
Uniprot ID	P00441
Gene ID	6647
Background	The protein encoded by this gene binds copper and zinc ions and is one of two isozymes responsible for destroying free superoxide radicals in the body. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occuring but harmful superoxide radicals to molecular oxygen and hydrogen peroxide. The other isozyme is a mitochondrial protein. Mutations in this gene have been implicated as causes of familial amyotrophic lateral sclerosis. Rare transcript variants have been reported for this gene. [provided by RefSeq, Jul 2008]
Cellular Location	Cytoplasm.Nucleus.Predominantly cytoplasmic; the pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria.

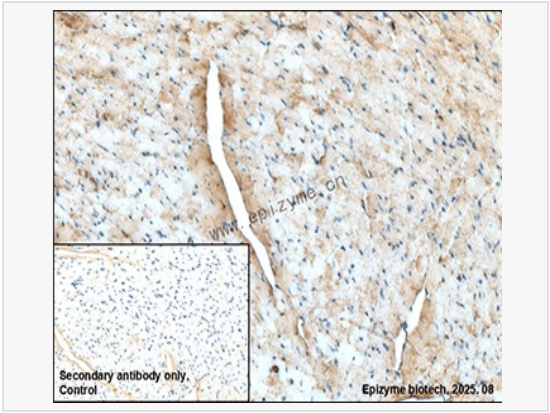
Validation Images



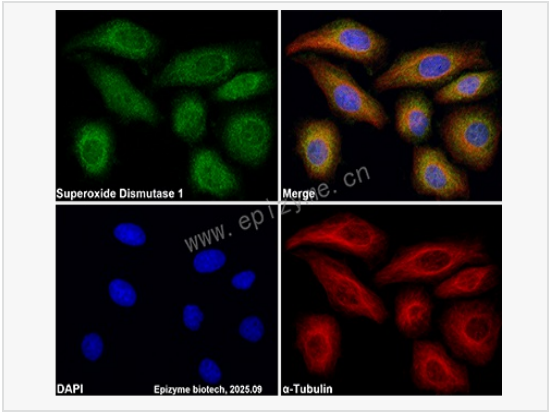
Western Blot - Anti-Superoxide Dismutase 1 Rabbit mAb [81M16M80]
All lanes: R011975 at 1:5,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: K562 (Human chronic myeloid leukemia cell) whole cell lysates
Lane 5: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates
Lane 6: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lane 7: Mouse heart whole tissue lysates
Lane 8: Mouse liver whole tissue lysates
Lane 9: Mouse brain whole tissue lysates
Lane 10: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates
Lane 11: Rat heart whole tissue lysates
Lane 12: Rat brain whole tissue lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
Predicted band size: 16 kDa
Observed band size: 18 kDa
Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-Superoxide Dismutase 1 Rabbit mAb [81M16M80]
Sample: Paraformaldehyde-fixed, paraffin embedded rat kidney tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R011975 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Superoxide Dismutase 1 Rabbit mAb [81M16M80]
Sample: Paraformaldehyde-fixed, paraffin embedded mouse heart tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R011975 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunofluorescence - Anti-Superoxide Dismutase 1 Rabbit mAb [81M16M80]
Sample: HeLa cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R011975 at 1:100 dilution and α-tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution
Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)
Nuclei were stained with DAPI (shown in blue).