

Product datasheet for **TA301157**

SOD2 Rabbit Monoclonal Antibody [Clone ID: EPR2560Y]

Product data:

| | |
|-------------------------|---|
| Product Type: | Primary Antibodies |
| Clone Name: | EPR2560Y |
| Applications: | IHC, WB |
| Recommended Dilution: | IHC-Fr: Use at an assay dependent concentration; WB: 1:1000 - 1:2000; IHC-P: 1:100 - 1:250 |
| Reactivity: | Mouse, Rat, Human |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Monoclonal |
| Immunogen: | A synthetic peptide corresponding to residues near the N-terminus of human SOD2 was used as an immunogen. |
| Formulation: | pH: 7.40 Preservative: 0.01% Sodium azide Constituents: 50% Glycerol, 0.05% BSA |
| Purification: | Tissue culture supernatant |
| Conjugation: | Unconjugated |
| Storage: | Store at -20°C as received. |
| Stability: | Stable for 12 months from date of receipt. |
| Predicted Protein Size: | 25 kDa |
| Gene Name: | superoxide dismutase 2, mitochondrial |
| Database Link: | NP_000627 Entrez Gene 20656 Mouse Entrez Gene 24787 Rat Entrez Gene 6648 Human P04179 |



[View online »](#)

Background:

Superoxide dismutase comprises a family of metalloenzymes that catalyze the oxidation-reduction of superoxide anion to H₂O₂. Manganese superoxide dismutase (SOD2) is encoded by nuclear chromatin, synthesized in the cytosol, and imported posttranslationally into the mitochondrial matrix (1). It has been shown that SOD2 activity in tumor cells is lower than that in their normal counterparts. Results suggest that the reduced level of SOD2 activity observed in human tumor cells is not due to a defect in the primary structure of the SOD2 protein, a change in the dosage of the SOD2 gene, or a decrease in the stability of SOD2 mRNA in tumor cells but rather is due to a defect or defects in the expression of the gene (2). SOD2 is one of the major cellular defense enzymes that protects against toxic effects of superoxide radicals. Overexpression of human SOD2 has been shown to inhibit radiation-induced neoplastic transformation, suppress malignancy of cancer cells, and increase tolerance to various toxic agents (3).

Synonyms:

IPOB; MNSOD; MVCD6

Note:

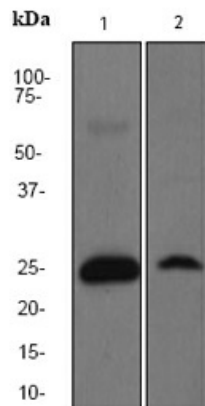
Is unsuitable for Flow Cyt, ICC or IP.

Protein Families:

Druggable Genome, Transcription Factors

Protein Pathways:

Huntington's disease

Product images:

Western blot - Superoxide Dismutase 2 antibody [EPR2560Y]; All lanes : Anti-SOD2 antibody [EPR2560Y] at 1/500 dilution. Lane 1 : Rat brain lysate. Lane 2 : SH-SY5Y lysate. Lysates/proteins at 10 ug per lane. Secondary. HRP labelled goat anti-rabbit at 1/2000 dilution. Predicted band size : 25 kDa. Observed band size : 25 kDa.

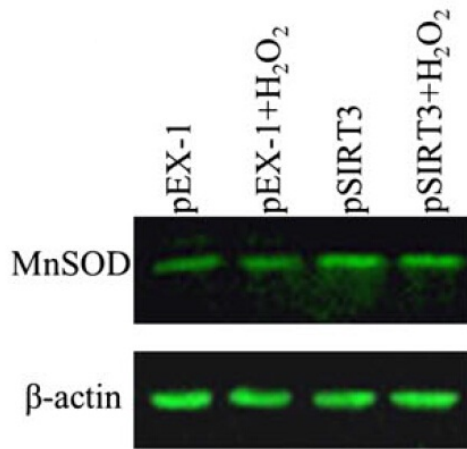
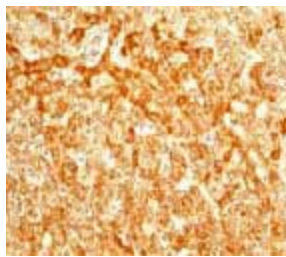
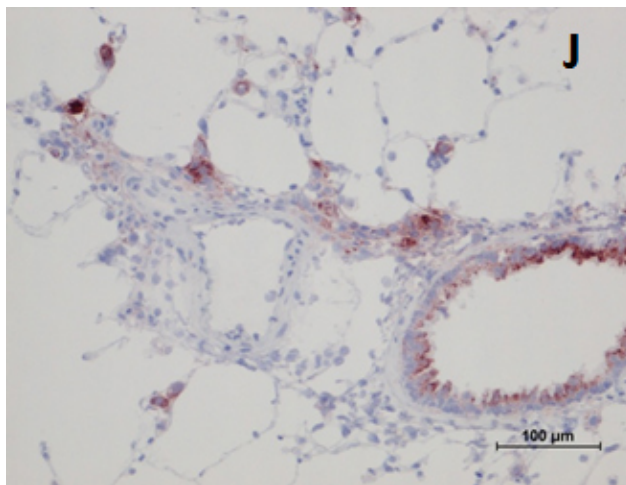


Figure from citation: Western Blot of SOD2 protein level by using anti-SOD2 antibody in hMSCs. [View Citation](#)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Superoxide Dismutase 2 antibody [EPR2560Y]; TA301157 at 1:100 dilution staining Superoxide Dismutase 2 in human liver tissue sections.



Immunohistochemistry (Frozen sections) - Anti-SOD2 antibody [EPR2560Y]; Immunohistochemical analysis of frozen rat lung tissue taken from rats with monocrotaline-exposure/pneumonectomy, staining SOD2 with TA301157.