Rabbit monoclonal antibody to Human SOD1.

CABT-37098RH Rabbit(SOD1)
Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview	Rabbit monoclonal antibody to Human SOD1.
Antigen Description	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.
Target	SOD1
Immunogen	A synthetic peptide corresponding to residues in human Superoxide Dismutase 1
Host	Rabbit
Isotype	IgG
species	Human
Clone	FQS2837
Purification	Tissue culture supernatant
Applications	ICC/IF, IHC-P, IP, WB
Sequence similarities	Belongs to the Cu-Zn superoxide dismutase family.
Cellular localization	Cytoplasm. The pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria.

PACKAGING

Format	Liquid
Buffer	Preservative: 0.01% Sodium AzideConstituents: 40% Glycerol, 0.05% BSA, 0.15M Sodium chloride, 50mM Tris glycine, pH 7.4
Storage	Store at -20°C. Stable for 12 months at -20°C

ANTIGEN GENE INFORMATION

Gene Name	SOD1 superoxide dismutase 1, soluble [Homo sapiens]
Official Symbol	SOD1
Synonyms	SOD1; superoxide dismutase 1, soluble; ALS, ALS1, amyotrophic lateral sclerosis 1 (adult); superoxide dismutase [Cu-Zn]; IPOA; ALS; ALS1; Amyotrophic lateral sclerosis 1 adult; Cu/Zn SOD; Cu/Zn superoxide dismutase; Homodimer; hSod1; Indophenoloxidase A; IPOA; Mn superoxide dismutase; SOD; SOD soluble; SOD1; SOD2; SODC; SODC_HUMAN; Superoxide dismutase [Cu-Zn]; Superoxide dismutase 1; Superoxide dismutase 1 soluble; Superoxide dismutase Cu Zn; Superoxide dismutase cystolic; SOD, soluble; OTTHUMP00000107278; OTTHUMP00000107279; indophenoloxidase A; Cu/Zn superoxide dismutase; superoxide dismutase, cystolic; ALS; SOD; ALS1; hSod1; homodimer;
GeneID	6647

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mRNA Refseq	NM_000454
Protein Refseq	NP_000445
MIM	147450
UniProt ID	P00441
Chromosome Location	21q22.11
Pathway	Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; FOXA1 transcription factor network, organism-specific biosystem; Folate Metabolism, organism-specific biosystem; Hemostasis, organism-specific biosystem; Huntingtons disease, organism-specific biosystem; Huntingtons disease, conserved biosystem;
Function	chaperone binding; copper ion binding; metal ion binding; oxidoreductase activity; protein binding; protein homodimerization activity; protein phosphatase 2B binding; superoxide dismutase activity; zinc ion binding;

REFERENCES

1. Dysregulation of astrocyte-motoneuron cross-talk in mutant superoxide dismutase 1-related amyotrophic lateral sclerosis. Ferraiuolo L, et al. Brain, 2011 Sep.
2. Differential involvement of optineurin in amyotrophic lateral sclerosis with or without SOD1 mutations. Deng HX, et al. Arch Neurol, 2011 Aug.
3. Spinal inhibitory interneuron pathology follows motor neuron degeneration independent of glial mutant superoxide dismutase 1 expression in SOD1-ALS mice. Hossaini M, et al. J Neuropathol Exp Neurol, 2011 Aug.

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