

Product Name: KD-Validated Superoxide Dismutase 1 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01459

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 15.9kDa

Antigen Information

Gene Name	SOD1
Alternative Names	SOD1; Superoxide Dismutase 1; IPOA; Superoxide Dismutase 1, Soluble; Superoxide Dismutase [Cu-Zn]; EC 1.15.1.1; HSod1; ALS1; ALS; Amyotrophic Lateral Sclerosis 1 (Adult); Epididymis Secretory Protein Li 44; Superoxide Dismutase, Cytosolic; Cu/Zn Superoxide Dismutase; Indophenoloxidase A; SOD, Soluble; Homodimer; HEL-S-44; STAHP; SOD
Gene ID	6647.0
SwissProt ID	P00441
Immunogen	A synthesized peptide derived from human SOD1

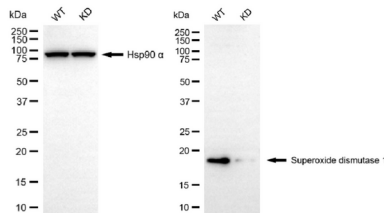
Background

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-occurring but harmful superoxide radicals to molecular oxygen and hydrogen peroxide. The other isozyme is a mitochondrial protein. In addition, this protein contains an antimicrobial peptide that displays antibacterial, antifungal, and anti-MRSA activity against *E. coli*, *E. faecalis*, *S. aureus*, *S. aureus* MRSA LPV+, *S. agalactiae*, and yeast *C. krusei*. 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 2020]

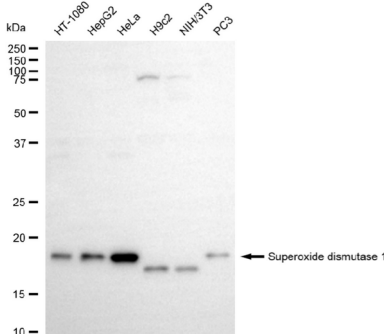
Research Area

Signal Transduction,Cell Biology,Cancer,Metabolism,Neuroscience

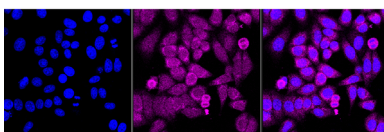
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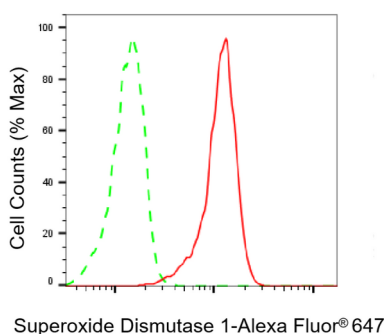
Western blotting analysis using superoxide dismutase 1 antibody (KVA01459). Superoxide dismutase 1 expression in wild-type (WT) and superoxide dismutase 1 (SOD1) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with superoxide dismutase 1 antibody (KVA01459, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using superoxide dismutase 1 antibody (KVA01459). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with superoxide dismutase 1 antibody (KVA01459, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Superoxide dismutase 1 antibody (KVA01459, 1:1,000). Nuclei were stained blue with DAPI; Superoxide dismutase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Flow cytometric analysis of Superoxide Dismutase 1 expression in HepG2 cells using Superoxide Dismutase 1 antibody (KVA01459, 1:2,000). Green, isotype control; red, Superoxide Dismutase 1.