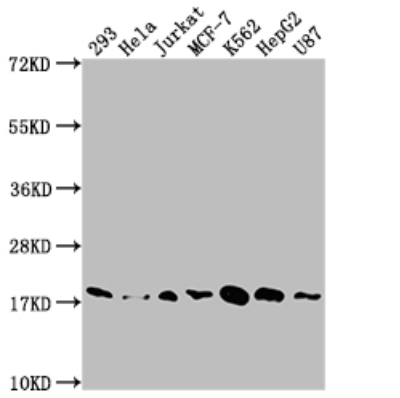
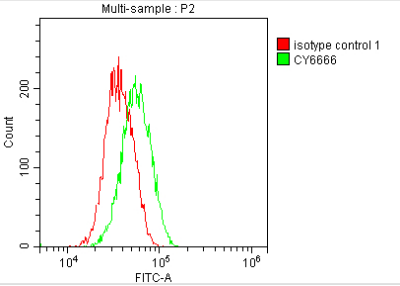
SOD1 Antibody

Product Code	CSB-RA829583A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P00441
Immunogen	A synthesized peptide derived from human SOD1
Species Reactivity	Human
Tested Applications	ELISA, WB, FC; Recommended dilution: WB:1:500-1:5000, FC:1:20-1:200
Relevance	Destroys radicals which are normally produced within the cells and which are toxic to biological systems.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cell biology; Metabolism; Signal transduction
Gene Names	SOD1
Accession NO.	3E5

Image



Western Blot
Positive WB detected in: 293 whole cell lysate, Hela whole cell lysate, Jurkat whole cell lysate, MCF-7 whole cell lysate, K562 whole cell lysate, HepG2 whole cell lysate, U87 whole cell lysate
All lanes: SOD1 antibody at 1:1500
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 16 kDa
Observed band size: 18 kDa



Overlay histogram showing Jurkat cells stained with CSB-RA829583A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followedby the antibody (1µg/1*106cells) for 1 h at 4°C.The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4°C. Control antibody (green line) was Rabbit IgG (1µg/1*106cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

SOD1 is a metalloenzyme that uses an important copper atom in its active site to catalyze the disproportionation of superoxide anion into hydrogen peroxide and molecular oxygen. SOD1 guards against oxygen radical species created during cellular metabolism as a free radical scavenger. In the study of a pathomechanism of amyotrophic lateral sclerosis, SOD1 has been recognized as the gold standard (ALS). A pathological characteristic of ALS induced by SOD1 mutations has been established: the abnormal buildup of misfolded SOD1 in afflicted spinal motor neurons.

The production of this recombinant SOD1 antibody started with identifying and cloning the genes for antibody expression. After the SOD1 antibody was cloned into an expression plasmid, the plasmid could be introduced into the mammalian cell to produce the target recombinant antibody. This recombinant SOD1 antibody has been validated in ELISA, WB, FC.