Mouse SOD3/EC-SOD Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF4817T
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse SOD3/EC-SOD in Western blots. In Western blots, less than 1% cross-reactivity with recombinant mouse SOD1 or SOD2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse SOD3/EC-SOD Ser25-Thr251 Accession # O09164
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Superoxide Dismutases (SODs), originally identified as Indophenoloxidase (IPO), are enzymes that catalyze the conversion of naturally-occuring but harmful superoxide radicals into molecular oxygen and hydrogen peroxide. Superoxide Dismutases 3, SOD3, also known as extracellular (EC) SOD, is tetrameric glycoprotein with an apparent subunit molecular weight of about 30 kDa. Like SOD1, SOD3 binds one Cu^{2+} and Zn^{2+} ions per subunit but differs in sequence and tissue distribution. Three isoenzymes of SOD have been identified and are functionally related but have very modest sequence homology. SOD3 shares 23% and 17% sequence identity with SOD1 and SOD2, respectively. Mouse SOD3 shares ~66% and 82% sequence homology with human and rat SOD3, respectively. SOD3 is a secretory protein and is synthesized with a putative 24-amino acid signal peptide preceding the 227 amino acids in the mature SOD3. SOD3 is found in plasma, lymph, and synovial fluid as well as in tissues. SOD3 binds on the surface of endothelial cells through the heparan sulfate proteoglycan and eliminates the oxygen radicals from the NADP-dependent oxidative system of neutrophils.

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