BACKGROUND
Catalase is a peroxisome specific marker protein belonging to the catalase family. Defects in the gene encoding for the catalase protein can cause catalasemia, a disease characterized by the absence of catalase activity in red cells and associated with ulcerating oral lesions. Catalase is also an important regulator of oxidative stress and inflammation, and may contribute to the development of rheumatoid arthritis. Catalase, which can form a homotetramer, is found in nearly all aerobically respiring organisms and functions in protecting cells from the toxic effects of hydrogen peroxide.

CHROMOSOMAL LOCATION
Genetic locus: CAT (human) mapping to 11p13; Cat (mouse) mapping to 2 E2.

SOURCE
Catalase (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 471-503 near the C-terminus of catalase of mouse origin.

PRODUCT
Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

catalase (H-9) is available conjugated to agarose (sc-271803 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271803 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin(sc-271803 PE), fluorescein (sc-271803 FITC), Alexa Fluor® 488 (sc-271803 AF488), Alexa Fluor® 546 (sc-271803 AF546), Alexa Fluor® 594 (sc-271803 AF594) or Alexa Fluor® 647 (sc-271803 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271803 AF680) or Alexa Fluor® 790 (sc-271803 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271803 P, (100 µg and associated with ulcerating oral lesions. Catalase is also an important regulator of oxidative stress and inflammation, and may contribute to the development of rheumatoid arthritis. Catalase, which can form a homotetramer, is found in nearly all aerobically respiring organisms and functions in protecting cells from the toxic effects of hydrogen peroxide.

APPLICATIONS
catalase (H-9) is recommended for detection of catalase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for catalase siRNA (h): sc-45330, catalase siRNA (m): sc-45331, catalase shRNA Plasmid (h): sc-45330-SH, catalase shRNA Plasmid (m): sc-45331-SH, catalase shRNA (h) Lentiviral Particles: sc-45330-V and catalase shRNA (m) Lentiviral Particles: sc-45331-V.

Molecular Weight of catalase: 64 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, PC-12 cell lysate: sc-2250 or rat liver extract: sc-2395.

STORAGE
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

SELECT PRODUCT CITATIONS

RESEARCH USE
For research use only, not for use in diagnostic procedures.