

# MAO-B (C-17): sc-18401

## BACKGROUND

Monoamine oxidase (MAO) is an enzyme of the mitochondrial outer membrane and catalyzes the oxidative deamination of biogenic amines throughout the body. MAO is critical in the neuronal metabolism of catecholamine and indolamine transmitters. Cultured skin fibroblasts show both MAO-A and MAO-B and both MAOs differ in molecular structure. MAO-A, the primary type in fibroblasts, preferentially degrades serotonin and norepinephrine. Only MAO-B is present in platelets and only MAO-A is present in trophoblasts. MAO-B, the primary type found not only in platelets but also in the brain of man and other primates, preferentially degrades phenylethylamine and benzylamine. MAO has been of particular interest to psychiatry and genetics because of the suggestion that low activity is a "genetic marker" for schizophrenia. The genes which encode MAO-A and MAO-B map to human chromosome Xp11.3.

## CHROMOSOMAL LOCATION

Genetic locus: MAOB (human) mapping to Xp11.3; Maob (mouse) mapping to X A1.2.

## SOURCE

MAO-B (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MAO-B of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18401 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MAO-B (C-17) is recommended for detection of MAO-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1,000), 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3,000).

MAO-B (C-17) is also recommended for detection of MAO-B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MAO-B siRNA (h): sc-35849, MAO-B siRNA (m): sc-35850, MAO-B shRNA Plasmid (h): sc-35849-SH, MAO-B shRNA Plasmid (m): sc-35850-SH, MAO-B shRNA (h) Lentiviral Particles: sc-35849-V and MAO-B shRNA (m) Lentiviral Particles: sc-35850-V.

Molecular Weight of MAO-B: 60 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or human platelet extract: sc-363773.

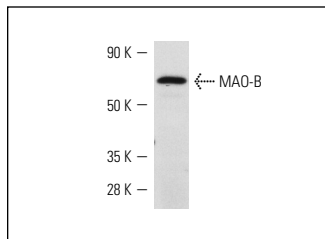
## RESEARCH USE

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

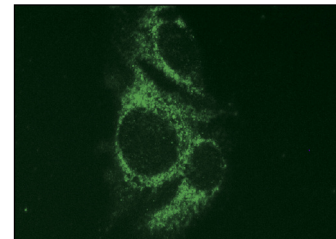
## STORAGE

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

## DATA



MAO-B (C-17): sc-18401. Western blot analysis of MAO-B expression in human platelet extract.



MAO-B (C-17): sc-18401. Immunofluorescence staining of methanol-fixed Hep G2 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Coulouarn, C., et al. 2005. Genome-wide response of the human Hep3B hepatoma cell to proinflammatory cytokines, from transcription to translation. *Hepatology* 42: 946-955.
- Ou, X.M., et al. 2009. Glyceraldehyde-3-phosphate dehydrogenase-monoamine oxidase B-mediated cell death-induced by ethanol is prevented by Rasagiline and 1-R-aminoinidan. *Neurotox. Res.* 16: 148-159.
- Launay, J.M., et al. 2009. Smoking induces long-lasting effects through a monoamine-oxidase epigenetic regulation. *PLoS ONE* 4: e7959.
- Ou, X.M., et al. 2010. A novel role for glyceraldehyde-3-phosphate dehydrogenase and monoamine oxidase B cascade in ethanol-induced cellular damage. *Biol. Psychiatry* 67: 855-863.
- Zellner, M., et al. 2011. A proteomics study reveals a predominant change in MaoB expression in platelets of healthy volunteers after high protein meat diet: relationship to the methylation cycle. *J. Neural. Transm.* 118: 653-662.
- Wang, C.C., et al. 2011. Monoamine oxidase a expression is vital for embryonic brain development by modulating developmental apoptosis. *J. Biol. Chem.* 286: 28322-28330.
- Tapia-González, S., et al. 2011. Dopamine and  $\alpha$ -synuclein dysfunction in Smad3 null mice. *Mol. Neurodegener.* 6: e72.
- Zellner, M., et al. 2012. Comparative platelet proteome analysis reveals an increase of monoamine oxidase-B protein expression in Alzheimer's disease but not in non-demented Parkinson's disease patients. *J. Proteomics* 75: 2080-2092.

**MONOS**  
Satisfaction  
Guaranteed

Try **MAO-B (D-6): sc-515354** or **MAO-B (B-8): sc-515575**, our highly recommended monoclonal alternatives to MAO-B (C-17).