**BACKGROUND**

Methamphetamine (METH) is a central nervous system stimulant with further peripheral sympathomimetic effects. Closely related chemically to amphetamine, METH has been used clinically for the treatment of narcolepsy, depression, obesity, minimal brain dysfunction, and to counter fatigue. METH, a molecule with a molecular weight of 149.2 g/mol, is also an indirect agonist selectively binding to a specific receptor and activating a response in the cell. The mechanism by which METH functions is through the release of newly synthesized norepinephrine and dopamine. METH also blocks the re-uptake of these neurotransmitters, leading to an increase in the concentration of catecholamines in the synaptic cleft. Neurotoxicity caused by METH in all monoaminergic cell types may remain primarily in the dopaminergic system within the striatum. METH is sometimes used as a stimulant recreational drug, and it is associated with widespread abuse.

**REFERENCES**

8. Lewis, D. 2006. We were wrong about "crack babies": are we repeating our mistake with "meth babies"? MedGenMed 7: 30.

**SOURCE**

METH (4E2) is a mouse monoclonal antibody raised against methamphetamine.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

METH (4E2) is recommended for detection of METH by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

**STORAGE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.