

**Anti-human inducible Nitric Oxide Synthase  
Monoclonal Antibody 21C10-1D10**

Supplied as Culture Supernatant

MC-5225

Lot # 7901

This culture supernatant contains mouse monoclonal antibody clone 21C10-1D10 raised against recombinant hiNOS. It has been epitope mapped using 96 overlapping 18 amino acid long synthetic peptides which cover the entire 1153 amino acid length of hiNOS and was found to bind to a defined region of the hiNOS sequence, residues 25-54. This monoclonal antibody has been found to stain hiNOS in western immunoblots and by immunocytochemistry. This monoclonal antibody was tested for recognition of other NOS isoforms by ELISA, western immunoblotting, and immunocytochemical techniques. It has been found to be a mouse IgG2b kappa by isotyping.

**Monoclonal Antibody Specificity**

<b>Polypeptide</b>	<b>% Cross Reactivity</b>
hiNOS (25-54)	100
rhiNOS (Type II)	100
hnNOS (201-231)	0
rhnNOS (Type I)	0
heNOS (25-54)	0
rheNOS (Type III)	0

**Immunofluorescent Staining of Induced Cells**

This monoclonal antibody has been found to stain cells induced to produce iNOS at a 1:10 dilution. The ability of this monoclonal antibody to bind to iNOS in fixed cells was examined using three different cell lines, DLD-1 (a human colorectal epithelial cell line), A-172 (a human glioblastoma cell line), and RAW 264.7 (a mouse macrophage cell line). The cells were cultured, and then induced to produce iNOS. Following the induction, the cells were washed x 4 and fixed in either neutral buffered formalin or 100% ice cold. They were reacted for 60 minutes with the culture supernatant, and then with FITC-conjugated goat anti-mouse IgG. The staining pattern was observed using epifluorescent microscopy.

**Western Immunoblot**

Western immunoblots resulted in a single band being detected at ~ 130 kDa at a dilution of 1:40.

**Western Blotting Protocol**

1. After SDS-PAGE (on either 4-15% gradient gels or single percentage gels, such as 7.5% gels) and electrophoretic transfer to PVDF membrane, block the membrane overnight with 2% normal goat serum in TBS/Tween-20 buffer.
2. Wash x 2 with TBS/Tween-20.
3. Apply the mouse monoclonal antibody after preparing a 1:50 dilution. Use 2% normal goat serum in TBS/Tween-20 as buffer, and let the primary antibody bind for 2-4 hours.
4. Wash x 3 with TBS/Tween-20.
5. Apply affinity purified HRP-goat anti-rabbit IgG antiserum diluted 1:2500 (dilution may vary depending upon supplier) in 2% normal goat serum in TBS/Tween-20. Incubate 1-2 hours. Note: greater sensitivity may be achieved using ABC techniques.
6. Wash x 4 for 5 min per wash in TBS/Tween-20 buffer.
7. Develop color using the enhanced DAB reaction.