



Catalog Number:	MO22190	Host:	Mouse
Product Type:	Mouse Monoclonal IgM	Species Reactivity:	Not Applicable
Immunogen Sequence:	Recombinant GFP purified from E. coli. The epitope is in the N-terminal 18 amino acids of the protein, the peptide MVSKGAEELFTGIVPILIE, which is found in the Clontech and other GFP vectors	Format:	Purified liquid antibody in 50% PBS, 50% glycerol plus 5mM of Sodium Azide. Concentration: 1mg/ml.
Applications:	Immunofluorescent: 1:1,000 Immunocytochemistry: 1:1,000 Western Blot: 1:1,000		

Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.

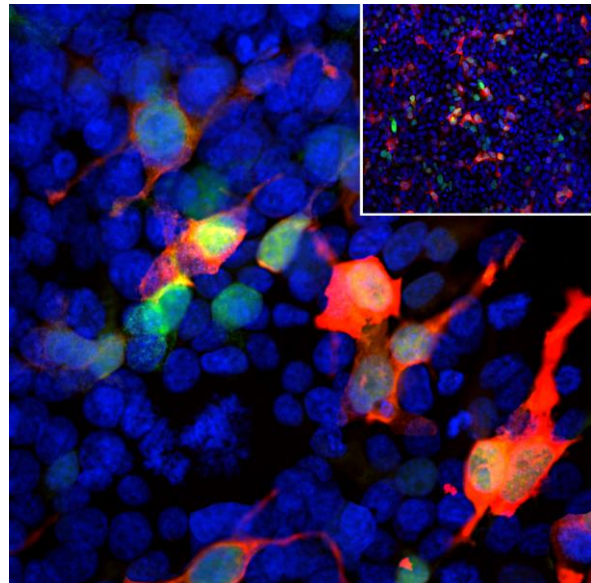
Storage: Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.

Application Notes

Description/Data:

The green fluorescent protein (GFP) is a 27kDa protein isolated originally from the jellyfish *Aequoria victoria*. It has an endogenous fluorochrome activity with excitation maximum at 395nm and emission maximum at 509nm, which is similar to that of fluorescein. The GFP gene was sequenced and the origin of the fluorochrome by autocatalytic activity of certain amino acids was discovered. Much interest in GFP was generated when it was shown that fluorescence develops rapidly when the protein is expressed and requires only molecular oxygen and no other cofactors. As a result GFP can be expressed in fluorescent form in essentially any prokaryotic or eukaryotic cell. GFP has been engineered to produce a vast number of variously colored mutants including blue, cyan and yellow protein derivatives, BFP, CFP and YFP. GFP and other fluorescent proteins derived from other Cnidarians (jellyfish, coral and medusa) are widely used as tracers in transfection and transgenic experiments to monitor gene expression and protein localization *in vivo* and *in vitro*. The crystal structure of GFP was determined which allowed amino acid modifications to improve spectral properties and prevent multimerization.

Image: Immunofluorescent analysis of transfected HEK293 cells transfected with a GFP construct and stained with mouse mAb to GFP, MO22190, dilution 1:1,000, in red. The blue is Hoechst staining of nuclear DNA. The GFP antibody binds to GFP protein expressed only in transfected cells, and as a result cells are appeared in orange-golden color.



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