

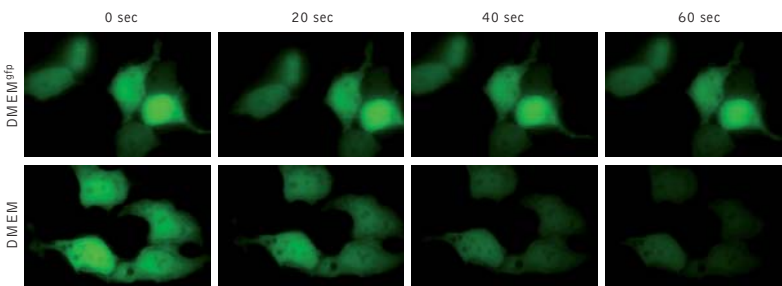
Antibleaching Live Cell Visualization Medium DMEM^{gfp}



Photobleaching of fluorescent proteins in response to prolonged exposure to exciting radiation significantly affects their utility as *in vivo* labels. The only ways of minimizing photobleaching known to date were limited to reducing of the excitation light intensity or shortening the duration of illumination. New Evrogen DMEM^{gfp} live cell visualization medium excludes the components that lead to oxidative redding of green fluorescent proteins, the photochemical process that was shown to be one of the main sources of GFP photobleaching (Bogdanov *et al.*, 2009). Replacing the culture medium with DMEM^{gfp} for the period of visualization results in up to a 9-fold increase of photostability of EGFP, a 3.3-fold increase of photostability of TagGFP2 and more than a 4-fold increase of photostability of activated forms of photoactivatable PA-GFP and PS-CFP2*.

DMEM^{gfp} medium is intended for imaging use only, and is not recommended for long-term cell culturing. Nevertheless, no negative effects on cell physiology were observed during the first week of cultivation in DMEM^{gfp} supplemented with L-glutamine, penicillin, streptomycin and fetal bovine serum. These common supplementary compounds have no influence on antibleaching properties of the medium.

* The effect varies for particular fusions and localizations.
The medium is effective for green fluorescent proteins only.



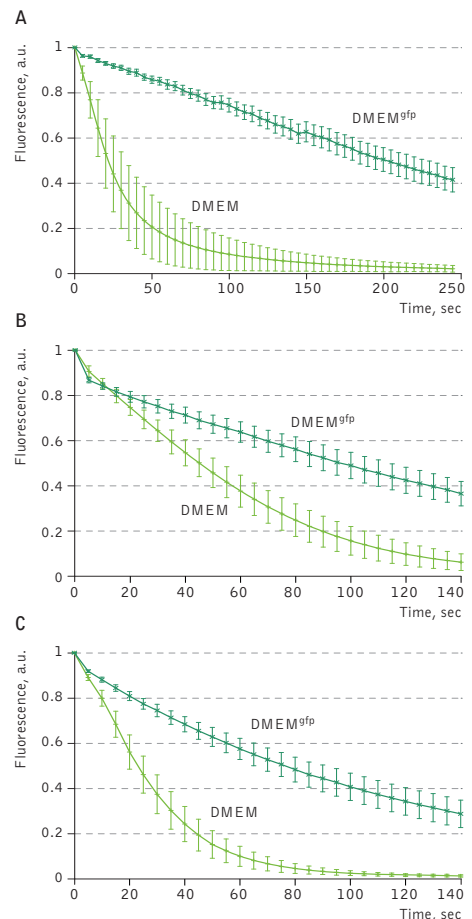
Long-term fluorescent microscopy of EGFP in live HEK293T cells maintained in DMEM or DMEM^{gfp}.

Reference: Bogdanov *et al.* Cell culture media affects green fluorescent protein photostability: a solution. *Nature Methods*, 2009 Dec; 6(12):859-860.

For more information, please visit our web-site:
www.evrogen.com

Product	Cat.#	Size
DMEM ^{gfp} medium	MC101	100 ml

Storage: +4°C



Influence of cell medium on photostability of fluorescent proteins. (A) - EGFP, (B) AcGFP1, (C) TagGFP2. Graph shows normalized bleaching curves of fluorescent proteins in live HEK293 cells maintained in DMEM or DMEM^{gfp}. Standard deviations (n = 15-20 cells) are shown.