

# Methionine Deficient Green Florescent Protein (mGFP) vector

**Catalogue number:** 156390

**Sub-type:**

**Images:**

## Contributor

**Inventor:** Dr. Bob Beitle

**Institute:** University of Arkansas, Fayetteville

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** Methionine Deficient Green Florescent Protein (mGFP) vector

**Alternate name:**

**Class:**

**Conjugate:**

**Description:** Methionine Deficient Green Florescent Protein (mGFP) is a mutated form of GFPuv (from *Aequorea victoria*) a GFP variant optimised for maximal fluorescence when excited by UV light. GFPuv can be used as a fusion partner to assist in the expression and isolation of peptides and to monitor biological processes. When GFPuv is fused to other proteins/peptides cyanogen bromide (CNBr) has been used to cleave the fused proteins at methionine residues. However, purification of the protein becomes more complex as the number of methionine residues in the reporter protein increases. GFPuv has four methionine residues which will lead to five fragments in the digestion mixture making purification more difficult. To reduce the downstream burden this mGFP mutant is resistant to CNBr cleavage making the purification process of proteins more efficient.

**Purpose:**

**Parental cell:**

**Organism:**

**Tissue:**

**Model:**

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:**

**Formulation:**

**Recommended controls:**

**Bacterial resistance:**

**Selectable markers:**

**Additional notes:** Methionine Deficient Green Florescent Protein (mGFP) is a mutated form of GFPuv (from *Aequorea victoria*) a GFP variant optimised for maximal fluorescence when excited by UV light. GFPuv can be used as a fusion partner to assist in the expression and isolation of peptides and to monitor biological processes. When GFPuv is fused to other proteins/peptides cyanogen bromide (CNBr) has been used to cleave the fused proteins at methionine residues. However, purification of the protein becomes more complex as the number of methionine residues in the reporter protein increases. GFPuv has four methionine residues which will lead to five fragments in the digestion mixture making purification more difficult. To reduce the downstream burden this mGFP mutant is resistant to CNBr cleavage making the purification process of proteins more efficient.

## Target details

**Target:** mGFP

**Target alternate names:**

**Target background:**

**Molecular weight:**

**Ic50:**

## Applications

**Application:**

**Application notes:**

## Handling

**Format:**

**Concentration:**

**Passage number:**

**Growth medium:**

**Temperature:**

**Atmosphere:**

**Volume:**

**Storage medium:**

**Storage buffer:**  
**Storage conditions:**  
**Shipping conditions:**

## Related tools

**Related tools:**

## References

**References:** Hayward et al. 1987. Clin Chim Acta. 170(1):45-55. PMID: 3436044. ; Chung et al. 1985. J Immunol Methods. 84(1-2):135-41. PMID: 2415634.

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