

pCMV Humanized Ptilosarcus GFP

Product Description

Name :	pCMV Humanized Ptilosarcus GFP
Catalog Number :	FP-CQ0510, 50 µl, 25 µg/ml
Length	238 aa
Molecular Weight	27045
Molecular Extinction	22450
Isoelectric Point	5.92
Charge at pH 7	-4.52

Storage: -20°C Protect from light and moisture

Introduction

- Experiments *in vitro* indicate that this anthozoan GFP is over 3 times as bright as *Aequorea* EGFP, the most popular GFP variant used by scientists.
- Experiments *in vivo* indicate that this anthozoan GFP is also brighter and may be less cytotoxic than *Aequorea* EGFP.

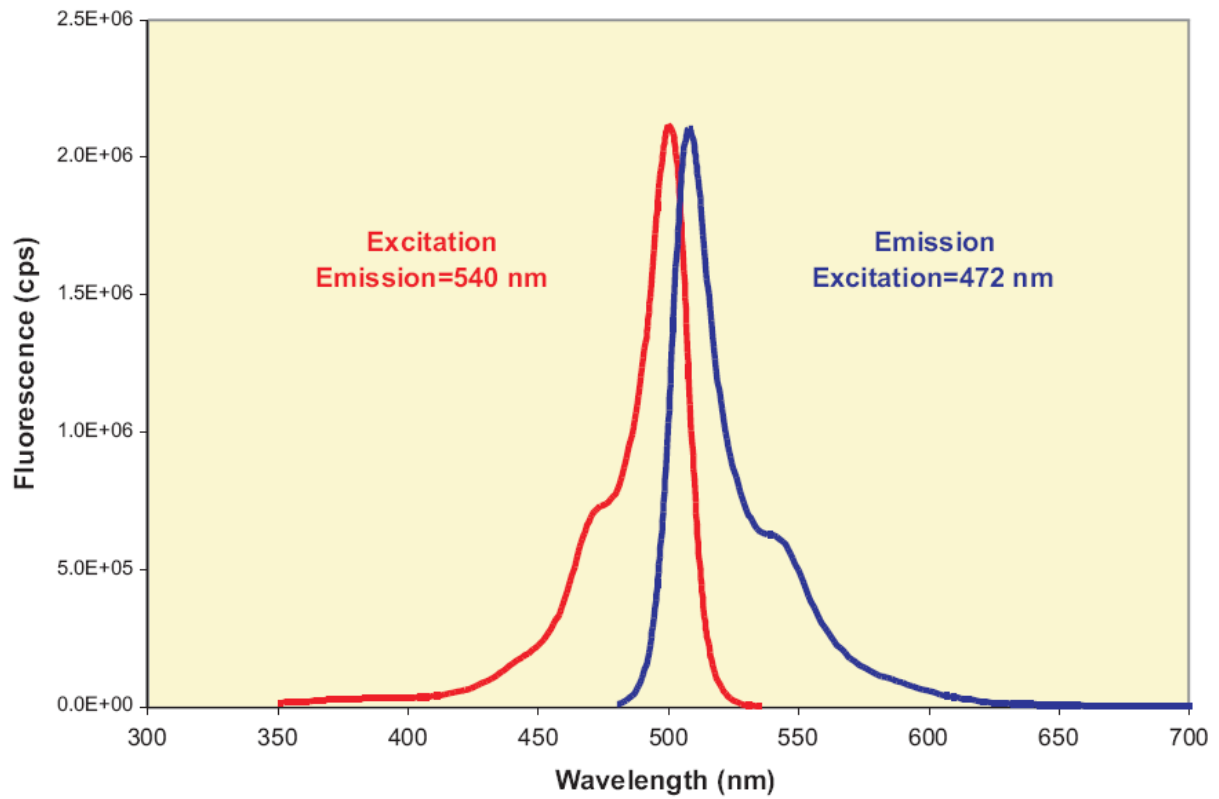
Green fluorescent protein isolated from pennatulacean *Ptilosarcus sp.* Exhibits spectral properties remarkably different from those of *Aequorea victoria* GFP. Although they fluoresce in the same spectral region, the molar absorptivity of *Ptilosarcus* GFP is much higher. Additionally, it has a strong induced CD signal in the absorption range of the chromophore. In *Pt.* GFP, unlike in *A. v.*, the chromophore is anionic at neutral pH (501 nm, molar absorptivity ~109,600 M⁻¹cm⁻¹) and becomes neutral (~390 nm) at lower pH values, higher temperatures, or in the presence of guanidine-HCl.

Despite the low sequence homology (identity ~25%, homology ~35%) between the two GFP's, the secondary structure of *Pt.* GFP calculated from far-UV CD data is very similar to that of *A.v.* GFP obtained from x-ray data. Consequently, we have used the known crystal structure of *A.v.* GFP as a basis for simulating the structure of *Pt.* GFP. An analysis of the relative positions of the residues in close proximity to the chromophore suggests that significant p-p interactions between the chromophore and nearby aromatic moieties might be responsible for the strong induced optical activity observed in *Pt.* GFP.

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Technical informations

Spectres



Sequence

gacggatcgggagatcctcccgatcccctatgggtcgactctcagtacaatctgctctgatgccgcatagttaagcc
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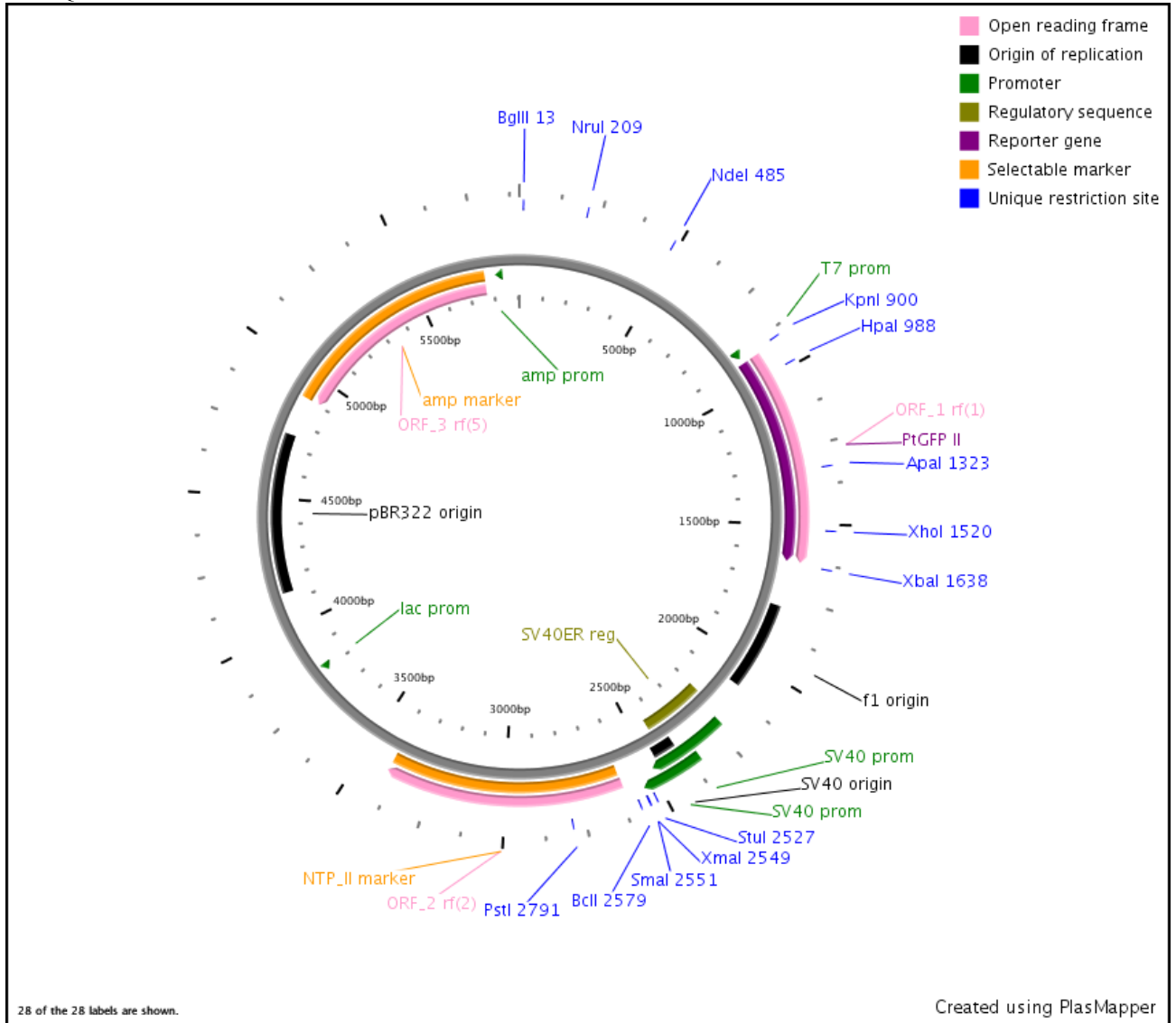


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Related / associated products and documents

See [BioSciences Innovations catalogue](#) and [e-search tool](#).

- Anti-Ptilosarcus GFP, [FP-CJ3470](#)

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>
Please inquire for higher quantities (availability, shipment conditions).

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