Aequorea victoria Green fluorescent protein / GFP (His Tag)

Catalog Number: 69001-S08E

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

GFP

Protein Construction:

A DNA sequence encoding the Aequorea victoria GFP (AAB65663) (Met1-Leu238, except for the point mutations:F64L, S65T, R80K, S99F, T153M, I167V, H231L) was expressed, with a polyhistide tag at the C-terminus.

Source: Aequorea victoria

Expression Host: E. coli

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity:

GFPSpark™ expression vector transfected 293 H cells transiently. After 24 h, testing the green fluorescent signals under the excitation channel of 455~495 nm.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant Aequorea victoria GFPSpark™ consisting of 245 amino acids and has a calculated molecular mass of 27.7 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.5

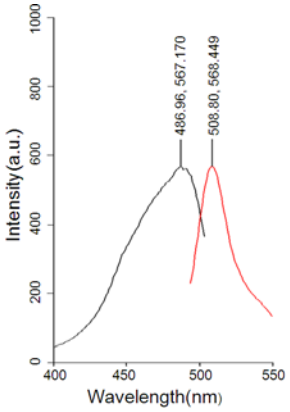
Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

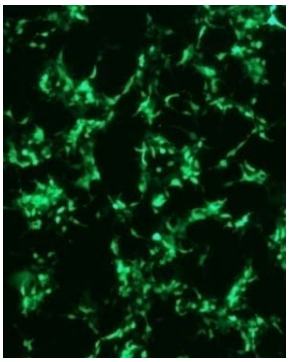
Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

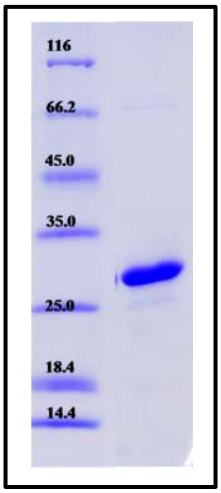
Avoid repeated freeze-thaw cycles.



Normalized excitation (black line) and emission (Red line) spectra of GFPSpark™.



GFPSpark™ expression in 293 H cell



GFPSpark™ on SDS-PAGE



GFPSpark™ protein of high purity.

Background

The green fluorescent protein (GFP) is a protein that exhibit bright green fluorescence when exposed to blue light. GFPSpark™ is an improved variant of the green fluorescent protein GFP. It possesses bright green fluorescence (excitation/ emission max = 487 / 508 nm) that is visible earlier than fluorescence of other green fluorescent proteins. GFPSpark™ is mainly intended for applications where fast appearance of bright fluorescence is crucial. Its amazing ability to generate a highly visible, efficiently emitting internal fluorophore is both intrinsically fascinating and tremendously valuable. It is specially recommended for cell and organelle labeling and tracking the promoter activity.

References

1. Evdokimov et al. (2006). EMBO Rep, 7 (10):1006–1012 / pmid: 16936637.
2. Haas et al. (1996). Curr Biol, 6 (3): 315–324 / pmid: 8805248.
3. Kremers et al. (2006). Biochemistry, 45 (21): 6570–6580 / pmid: 16716067.
4. Li et al. (1998). J Biol Chem, 273 (52): 34970–34975 /pmid: 9857028
5. Reid and Flynn (1997). Biochemistry, 36 (22): 6786–6791 / pmid: 9184161.
6. Shagin et al. (2004). Curr Biol, 21 (5): 841–850 / pmid: 14963095.