
Product Data Sheet

Product Name: GFPGreen fluorescent protein,Aequorea victoria (His)

Cat. No.: GC26850

Chemical Properties

Cas. No.

Formula

M.Wt

Approximately 27-31 kDa

Solubility

Greater than 90% as determined by reducing SDS-PAGE.

Storage Store at -20°C

General tips

For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

Shipping Condition

Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

The green fluorescent protein (GFP), *Aequorea victoria* is a protein that exhibits green fluorescence when exposed to light in the blue to ultraviolet range, found in organisms including *Aequorea victoria*, corals, sea anemones, zoanithids, copepods and lancelets. GFP Protein has a major excitation peak at a wavelength of 395 nm and a minor one at 475 nm, while its emission peak is at 509 nm, which is in the lower green portion of the visible spectrum. GFP Protein acts as an energy transfer receptor and actively transduces the blue chemiluminescence of the protein aequorin into green fluorescent light by energy transfer, which is used as expression of reporter genes. GFP Protein, *Aequorea victoria* (His) is a recombinant jellyfish *Aequorea victoria* GFP protein with N-6*His labeled tag that consists of 238 amino acids, which is expressed in *E. coli* [1][2][3][4][5][6][7].

References:

[1]. Prendergast FG, et al. Chemical and physical properties of aequorin and the green fluorescent protein isolated from *Aequorea forskålea*. *Biochemistry*. 1978 Aug

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

22;17(17):3448-53.

[2]. Phillips GJ. Green fluorescent protein-a bright idea for the study of bacterial protein localization. FEMS Microbiol Lett. 2001 Oct 16;204(1):9-18.

[3]. Morise H, et al. Intermolecular energy transfer in the bioluminescent system of Aequorea. Biochemistry. 1974 Jun 4;13(12):2656-62.

[4]. Ormö M, et al. Crystal structure of the Aequorea victoria green fluorescent protein. Science. 1996 Sep 6;273(5280):1392-5.

[5]. Song Y H, et al. Noninvasive monitoring of environmental toxicity through green fluorescent protein expressing Escherichia coli[J]. Korean Journal of Chemical Engineering, 2016, 33: 1331-1336.

[6]. Terskikh A, et al. "Fluorescent timer": protein that changes color with time. Science. 2000 Nov 24;290(5496):1585-8.

[7]. Kouros-Mehr H, et al. GATA-3 links tumor differentiation and dissemination in a luminal breast cancer model. Cancer Cell. 2008 Feb;13(2):141-52.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA