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Recombinant Human Vitamin D-Binding Protein Conjugates

Vitamin D-Binding Protein (Vitamin D-BP, also known as GC Globulin) binds monomeric G-actin in fixed and permeabilized cells. Available conjugated to a selection of bright and photostable CF® Dyes for fluorescence microscopy.

Product attributes

Probe cellular localization	G-Actin, Cytoskeleton
For live or fixed cells	For fixed cells
Assay type/options	Tissue staining
Detection method/readout	Fluorescence microscopy
Cell permeability	Membrane impermeant
Fixation options	Fix before staining (formaldehyde), Permeabilize before staining
Colors	Green, Red, Far-red, Near-infrared
Antibody/conjugate formulation	100 ug/mL in PBS/0.01% rBSA/0.05% sodium azide
Product origin	Recombinant BSA produced in Chinese hamster ovary cells, Recombinant Vitamin D Binding Protein (His tag) produced in HEK293 cells
Shipping condition	Room temperature

Product Description

Recombinant Human Vitamin D-Binding Protein (Vitamin D-BP, also known as GC Globulin) binds monomeric G-actin (1-3). Fluorescent conjugates of Vitamin D-BP can be used to stain monomeric G-actin in fixed and permeabilized cells.

- Labels monomeric G-actin in fixed and permeabilized cells
- Can be co-stained with fluorescent phalloidin for comparing G-actin and F-actin distribution
- Developed and optimized for immunofluorescence
- Available with bright and photostable CF® Dyes, including near-infrared CF®740

Vitamin D-BP staining may also be used in combination with fluorescent phalloidin staining of F-actin to visualize the distribution of unpolymerized G-actin relative to actin filaments. Vitamin D-BP is more specific for staining G-actin compared to fluorescent conjugates of DNase-I, which binds to DNA in addition to G-actin. Biotium's Recombinant Human Vitamin D-BP Conjugates are labeled with a selection of our bright and photostable CF® Dyes for fluorescence microscopy.

Superior CF® Dyes

Biotium's next-generation CF® Dyes were designed to be highly water-soluble with advantages in brightness and photostability compared to Alexa Fluor®, DyLight®, and other fluorescent dyes. Learn more about CF® Dyes.

Recombinant Human Vitamin D-Binding Protein Conjugates

Conjugation	Ex/Em	Size	Catalog No.	Dye Features
CF®488A	490/516 nm	1 mL (100 ug)	70087	CF®488A Features
CF®594	593/615 nm	1 mL (100 ug)	70088	CF®594 Features
CF®640R	642/663 nm	1 mL (100 ug)	70089	CF®640R Features
CF®647	652/668 nm	1 mL (100 ug)	70090	CF®647 Features
CF®740	742/767 nm	1 mL (100 ug)	70091	CF®740 Features

For staining F-actin, Biotium recommends ActinBrite™ High Affinity Phalloidin Conjugates which were designed to preserve strong F-actin binding over conventional phalloidin conjugates. With ActinBrite™, samples can be imaged after for a month or more (depending on the conjugate and mounting method)—making delayed imaging easier and more dependable.

Browse Biotium's comprehensive catalog of fluorescent bioconjugates as well novel and classic organelle stains.

References

1. J Biol Chem, 255(6), 2270(1980), S0021-9258(19)85885-4
2. J Cell Biol, 123(1), 1(1993), 10.1083/jcb.123.1.1
3. Biochim Biophys Acta, 1452(1), 12(1999), 10.1016/s0167-4889(99)00119-6