biotium Glowing products for science

Call us : 800-304-5357

CF® Dye Maleimides

CF® Dye Maleimides are thiol-reactive fluorescent dyes. Maleimides are commonly used to label proteins, peptides or other molecules containing free thiol groups.

Product attributes

Chemical reactivity (reacts with)	Thiols
Functional group	Maleimide
Storage Conditions	Store at -10 to -35 °C, Protect from light

Product Description

CF® Dye Maleimides are thiol-reactive fluorescent dyes. Maleimides are commonly used to label proteins or small ligands like peptides or oligonucleotide thiophosphates on free thiol groups.

- Thiol-reactive fluorescent dyes.
- Stably label antibodies, proteins, or small ligands like peptides or oligonucleotide thiophosphates on free thiol groups.
- Bright, photostable and water-soluble CF® Dyes are excellent options for fluorescent labeling.

Superior CF® Dyes

CF® Dyes are Biotium's line of next-generation fluorescent dyes that have improved brightness, photostability and water solubility compared to other commercially available fluorescent dyes.

Learn more about CF® Dyes. For more information download the CF® Dye Brochure.

CF® Dye Maleimide

Conjugation	Ex/Em	Size	Catalog No.	Dye Features
CF®350	355/450 nm	1 umol	92020	CF®350 Features
CF®405S	411/431 nm	1 umol	92030	CF®405S Features
CF®405M	416/452 nm	1 umol	92021	CF®405M Features
CF®405L	413/547 nm	1 umol	92046	CF®405L Features
CF®430	424/497 nm	1 umol	92118	CF®430 Features
CF®440	433/512 nm	1 umol	92124	CF®440 Features
CF®450	448/533 nm	1 umol	96012	CF®450 Features
CF®488A	490/516 nm	1 umol	92022	CF®488A Features
CF®503R	503/532 nm	1 umol	96079	CF®503R Features
CF®532	531/552 nm	1 umol	92045	CF®532 Features
CF®543	543/563 nm	1 umol	92044	CF®543 Features
CF®550R	551/577 nm	1 umol	96074	CF®550R Features
CF®555	554/568 nm	1 umol	92023	CF®555 Features
CF®568	562/584 nm	1 umol	92024	CF®568 Features
CF®570	568/592 nm	1 umol	96015	CF®570 Features
CF®583	584/606 nm	1 umol	96017	CF®583 Features
CF®583R	585/609 nm	1 umol	96107	CF®583R Features
CF®594	593/615 nm	1 umol	92025	CF®594 Features
CF®620R	620/643 nm	1 umol	92033	CF®620R Features
CF®633	629/650 nm	1 umol	92026	CF®633 Features
CF®640R	642/663 nm	1 umol	92034	CF®640R Features
CF®647	652/668 nm	1 umol	92027	CF®647 Features
CF®660R	663/682 nm	1 umol	92031	CF®660R Features
CF®660C	667/685 nm	1 umol	92028	CF®660C Features
CF®680	681/698 nm	1 umol	92029	CF®680 Features
CF®680R	680/701 nm	1 umol	92032	CF®680R Features
CF®750	755/779 nm	0.5 umol	96062	CF®750 Features
CF®770	770/797 nm	1 umol	96132	CF®770 Features
CF®790	783/808 nm	0.25 umol	96108	CF®790 Features
CF®800	797/817 nm	0.25 umol	92128	CF®800 Features
CF®820	822/835 nm	0.25 umol	96069	CF®820 Features

CF® Dye Technical Data

Dye	Abs/Em (nm)	MW (free acid form)	Sephadex® media[1]	Amax (nm)	Cf A260/Amax	Cf A280/Amax	ε[2]	Optimal DOL (IgG)
CF®350	355/450	~496	G-25	347	0.13	0.14	18,000	4-6
CF®405S	411/431	~1169	G-25	404	0.19	0.7	33,000	3-5
CF®405M	416/452	~503	G-25	408	0.24	0.13	41,000	4-6
CF®405L	413/547	~1573	G-25	395	N/A	0.5	24,000	8-12

Dye	Abs/Em (nm)	MW (free acid form)	Sephadex® media[1]	Amax (nm)	Cf A260/Amax	Cf A280/Amax	ε[2]	Optimal DOL (IgG)
CF®410	404/455	~242	G-25	416	0.15	0.2	46,000	5-7
CF®430	424/497	~429	G-25	426	0.21	0.044	40,000	5-8
CF®440	433/512	~479	G-25	440	0.303	0.139	40,000	5-8
CF®450	448/533	~689	G-25	450	0.205	0.2	40,000	5-8
CF®488A	490/516	~914	G-25	490	0.16	0.1	70,000	7-9
CF®503R	503/532	~1100	G-25	503	0.21	0.09	90,000	4-10
CF®505	505/519	~587	G-25	505	0.22	0.09	90,000	4-8
CF®510	513/537	~562	G-25	513	0.25	0.14	90,000	3-5
CF®514	516/549	~1216	G-25	516	0.14	0.073	105,000	5-8
CF®532	531/552	~685	G-25	527	0.11	0.06	96,000	4-7
CF®543	543/563	~887	G-25	541	0.305	0.095	100,000	4-7
CF®550R	551/577	~686	G-25	551	0.12	0.08	100,000	5-6
CF®555	554/568	~959	G-25	555	0.026	0.08	150,000	4-5, 3-6*
CF®568	562/584	~714	G-25	562	0.17	0.08	100,000	5-6
CF®570	568/592	~2998	G-25	568	0.0998	0.1	150,000	5-6
CF®583	584/606	~3127	G-75	583	0.139	0.223	150,000	5-6
CF®583R	585/609	~773	G-25	585	0.19	0.08	100,000	5-6
CF®594	593/615	~729	G-25	593	0.24	0.08	115,000	4-7
CF®597R	597/619	~800	G-25	597	0.25	0.08	100,000	5-6
CF®620R	620/643	~738	G-25	617	0.28	0.45	115,000	5-6
CF®633	629/650	~821	G-25	630	0.25	0.48	100,000	4-7
CF®640R	642/663	~832	G-50	642	0.23	0.44	105,000	4-7
CF®647	652/668	~985	G-25	650	0.01	0.03	240,000	4-5, 3-6*
CF®660C	667/685	~3024	G-75	667	0.05	0.08	200,000	3-6, 2-3*
CF®660R	662/682	~888	G-25	663	0.2	0.51	100,000	4-7
CF®680	681/698	~3153	G-75	681	0.06	0.09	210,000	3-5, 2-3*
CF®680R	680/701	~912	G-25	680	0.155	0.32	140,000	5-6
CF®700	696/721	~2474	G-75	696	0.055	0.06	240,000	3-6
CF®710	713/735	~860	G-25	712	0.11	0.07	115,000	5-6
CF®725	729/750	~890	G-25	729	0.11	0.07	120,000	5-6
CF®740	742/767	~900	G-25	742	0.132	0.08	105,000	5-6
CF®750	755/779	~2921	G-75	755	0.01	0.03	250,000	3-5, 2-3*
CF®770	770/797	~3091	G-75	770	0.041	0.06	220,000	3-5, 2-3*
CF®790	783/808	~3179	G-75	784	0.104	0.07	210,000	3-5
CF®800	797/817	~3334	G-75	797	0.09	0.08	210,000	3-5
CF®820	822/835	~2711	G-75	822	0.0459	0.07	253,000	3-6
CF®850	852/870	~2787	G-75	852	N/A	0.06	240,000	3-6
CF®870	876/896	~2773	G-75	877	N/A	0.06	240,000	3-6

1. Sephadex® media recommendations are for antibody purification, not nucleic acid.
2. Extinction Coefficient (ε).
*Suitable, but suboptimal DOL.

Sephadex is a registered trademark of Cytiva.

References

1. J Gen Physiol (2014) 143 (1): 105–118. DOI: 10.1085/jgp.201311053
2. J Biol Chem (2015) 290: 17956-17966. DOI: 10.1074/jbc.M115.641688
3. Nature Methods (2015) 12:773–779. DOI: 10.1038/nmeth.3475
4. Biophys J (2018) 115:996-1006. DOI: 10.1016/j.bpj.2018.07.037

Download a list of CF® Dye references.