

Cell analysis

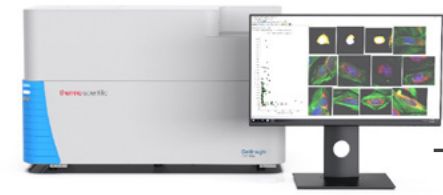
# Multiplexing HCA reagents for assay optimization

Take advantage of the entire fluorescence spectrum to optimize your assay by multiplexing your components to ask more significant biological questions. Use the table below to match Invitrogen™ reagents to the right high-content analysis (HCA) instrument channels. You can enter the product name or Cat. No. at [thermofisher.com/hca](https://thermofisher.com/hca) to see spectral data, cell images, and cell-based protocols.



Thermo Scientific™ CellInsight™ CX7 LZR Pro High Content Analysis Platform

Fluorescence channels	Blue	Cyan	Green	Yellow	Orange	Red	Deep red	Near IR
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Thermo Scientific™ CellInsight™ CX7 Pro High Content Analysis Platform

Fluorescence channels	Blue	Cyan	Green	Yellow	Orange	Red	Deep red	Near IR
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Thermo Scientific™ CellInsight™ CX5 High Content Analysis Platform

Fluorescence channels	Blue		Green		Orange	Red	Deep red	Near IR
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Secondary antibodies conjugated to Alexa Fluor™ dyes	Alexa Fluor™ 350	Alexa Fluor™ 405	Alexa Fluor™ 488	Alexa Fluor™ 532	Alexa Fluor™ 555	Alexa Fluor™ 594	Alexa Fluor™ 647	Alexa Fluor™ 750	Fixed	Live	Fixable
Goat anti-chicken			A11039		A21437	A11042	A21449		•		
Goat anti-mouse	A11045*	A31553**	A11001	A11002	A21422	A11005	A21235	A21037	•		
Goat anti-rabbit	A11046*	A31556**	A11008	A11009	A21428	A11012	A21244	A21039	•		
Goat anti-rat	A21093*		A11006		A21434	A11007	A21247		•		
Goat anti-guinea pig			A11073		A21435	A11076	A21450		•		
Goat anti-human			A11013		A21433	A11014	A21445		•		
Donkey anti-goat	A21081		A11055		A21432	A11058	A21447		•		
Donkey anti-mouse			A21202		A31570	A21203	A31571		•		
Donkey anti-rat			A21208			A21209			•		
Rabbit anti-goat			A11078		A21431	A11080	A21446		•		
Rabbit anti-mouse	A21062*		A11059		A21427	A11062	A21239		•		
Rabbit anti-rat			A21210			A21211			•		
Chicken anti-goat			A21467			A21468	A21469		•		
Chicken anti-mouse			A21200			A21201	A21463		•		
Chicken anti-rabbit			A21441			A21442	A21443		•		
Chicken anti-rat			A21470			A21471	A21472		•		
<b>Cell segmentation</b>											
Whole-cell segmentation	HCS CellMask™ Blue Stain, H32720		HCS CellMask™ Green Stain, H32714		HCS CellMask™ Orange Stain, H32713	HCS CellMask™ Red Stain, H32712	HCS CellMask™ Deep Red Stain, H32721		•		
Plasma membrane segmentation			CellMask™ Green Plasma Membrane Stain, C37608		CellMask™ Orange Plasma Membrane Stain, C10045		CellMask™ Deep Red Plasma Membrane Stain, C10046			•	•
Nuclear segmentation	HCS NuclearMask™ Blue Stain, H10325	Hoechst 34580, H21486	SYTO™ 9 Green Fluorescent Nucleic Acid Stain, S34854		SYTO™ 82 Orange Fluorescent Nucleic Acid Stain, S11363	HCS NuclearMask™ Red Stain, H10326	HCS NuclearMask™ Deep Red Stain, H10294		•	•	•
	DAPI, D1306		SYTOX™ Green Nucleic Acid Stain, S7020				SYTOX™ Deep Red Nucleic Acid Stain, S11380		•		
Cell tracking and tracing	CellTracker™ Blue CMF <sub>2</sub> HC Dye, C12881	CellTracker™ Violet BMQC Dye, C10094**	CellTracker™ Green CMFDA Dye, C7025		CellTracker™ Orange CMRA Dye, C34551	CellTracker™ Red CMTPIX Dye, C34552	CellTracker™ Deep Red Dye, C34565			•	•
<b>Cell structure</b>											
Cytoskeleton—actin	Alexa Fluor™ 350 Phalloidin, A22281*	Alexa Fluor™ Plus 405 Phalloidin, A30104	Alexa Fluor™ 488 Phalloidin, A12379		Alexa Fluor™ 555 Phalloidin, A34055	Alexa Fluor™ 594 Phalloidin, A12381	Alexa Fluor™ 647 Phalloidin, A22287	Alexa Fluor™ Plus 750 Phalloidin, A30105	•		
			CellMask™ Green Actin Tracking Stain, A57246		CellMask™ Orange Actin Tracking Stain, A57247		CellMask™ Deep Red Actin Tracking Stain, A57248		•	•	•
Cytoskeleton—tubulin			Tubulin Tracker™ Green, T34075				Tubulin Tracker Deep Red, T34077			•	
Endoplasmic reticulum			ER-Tracker™ Green (BODIPY™ FL Glibenclamide), E34251			ER-Tracker™ Red (BODIPY™ TR Glibenclamide), E34250				•	•
Lysosomes						LysoTracker™ Red DND-99, L7528	LysoTracker™ Deep Red, L12492			•	
Mitochondria			MitoTracker™ Green FM, M7514			MitoTracker™ Red CM-H <sub>2</sub> XRos, M7513	MitoTracker™ Deep Red FM, M22426			•	•
Plasma membrane	WGA, Alexa Fluor™ 350 Conjugate, W11263*		WGA, Alexa Fluor™ 488 Conjugate, W11261		WGA, Alexa Fluor™ 555 Conjugate, W32464	WGA, Alexa Fluor™ 594 Conjugate, W11262	WGA, Alexa Fluor™ 647 Conjugate, W32466		•		
<b>Cell function probes</b>											
Cell viability			Image-iT™ DEAD Green™ Viability Stain, I10291			Propidium Iodide, P1304MP				•	•
Cell proliferation			Click-iT™ EdU Alexa Fluor™ 488 HCS Assay, C10351		Click-iT™ EdU Alexa Fluor™ 555 HCS Assay, C10353	Click-iT™ EdU Alexa Fluor™ 594 HCS Assay, C10355	Click-iT™ EdU Alexa Fluor™ 647 HCS Assay, C10357				•
Apoptosis—caspase activity			CellEvent™ Caspase-3/7 Green Detection Reagent, C10423			CellEvent™ Caspase-3/7 Red Detection Reagent, C10430				•	•
Apoptosis—DNA fragmentation (TUNEL assay)			Click-iT™ TUNEL Alexa Fluor™ 488 Imaging Assay, C10245			Click-iT™ TUNEL Alexa Fluor™ 594 Imaging Assay, C10246	Click-iT™ TUNEL Alexa Fluor™ 647 Imaging Assay, C10247				•
Mitochondrial membrane potential					MitoTracker™ Orange CMTMRos, M7510					•	•
Oxidative stress—general			CellROX™ Green Reagent, C10444				CellROX™ Deep Red Reagent, C10422			•	•
						CellROX™ Orange Reagent, C10443				•	•
Endocytosis—lysosome-directed			pHrodo™ Green Dextran, 10,000 MW, P35368		pHrodo™ Red Dextran, 10,000 MW, P10361					•	•
			Dextran, Alexa Fluor™ 488, 10,000 MW, D22910		Dextran, Alexa Fluor™ 555, 10,000 MW, D34679	Dextran, Alexa Fluor™ 594, 10,000 MW, D22913	Dextran, Alexa Fluor™ 647, 10,000 MW, D22914			•	•
Endocytosis—receptor-mediated			Transferrin From Human Serum, Alexa Fluor™ 488 Conjugate, T13342		pHrodo™ Red Transferrin Conjugate, P35376		Transferrin From Human Serum, Alexa Fluor™ 647 Conjugate, T23366			•	•
			pHrodo™ Green Epidermal Growth Factor (EGF) Conjugate, P35375		pHrodo™ Red Epidermal Growth Factor (EGF) Conjugate, P35374					•	
Phagocytosis			pHrodo™ Green <i>E. coli</i> BioParticles™ Conjugate, P35366		pHrodo™ Red <i>E. coli</i> BioParticles™ Conjugate, P35361		pHrodo™ Deep Red <i>E. coli</i> BioParticles™ Conjugate, P35360			•	•
Autophagy			Premo™ Autophagy Tandem Sensor RFP-GFP-LC3B, P36239		Premo™ Autophagy Tandem Sensor RFP-GFP-LC3B, P36239					•	•
<b>Protein synthesis assay kits</b>											
Click-iT™ HPG			Alexa Fluor™ 488 Azide, A10266		Alexa Fluor™ 555 Azide, A20012	Alexa Fluor™ 594 Azide, A10270	Alexa Fluor™ 647 Azide, A10277				•
Click-iT™ AHA			Alexa Fluor™ 488 Alkyne, A10267		Alexa Fluor™ 555 Alkyne, A20013	Alexa Fluor™ 594 Alkyne, A10275	Alexa Fluor™ 647 Alkyne, A10278				•
Click-iT™ OPP			Alexa Fluor™ 488 Picolyl Azide Toolkit, C10641		Alexa Fluor™ 555 Picolyl Azide Toolkit, C10642		Alexa Fluor™ 647 Picolyl Azide Toolkit, C10643				•
<b>Cell painting assay</b>											
Image-iT™ Cell Painting Kit, I64000	Hoechst 34580, H21486		Concanavalin A, Alexa Fluor™ 488 Conjugate, C11252		Wheat Germ Agglutinin, Alexa Fluor™ 555 Conjugate, W32464	Alexa Fluor™ 568 Phalloidin, A12380	MitoTracker™ Deep Red FM, M22426		•		

\* Because of filter configuration, we do not recommend using these Alexa Fluor 350 conjugates with the CellInsight CX7 LZR platform.

\*\* The blue channel of the CellInsight CX7 LZR platform is recommended for detection of the Alexa Fluor 405 and CellTracker Violet dyes.