

# Ride the wave of fluorescent excellence

*metabion*

with our extended

## ATTO-dye portfolio for oligonucleotide labeling!

First-class oligonucleotides from **metabion** combined with top performance **ATTO** dyes covering the entire visible light and application spectrum shall elevate your results to the next level of excellence!

### ATTO dyes' main qualities



Strong  
absorption



High fluorescence  
quantum yield



High  
photostability



Good water  
solubility

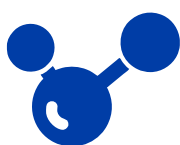


Low triplet  
formation

### Main application areas (NA based)



Real-time  
qPCR



Single molecule  
detection



FISH



Time resolved  
spectroscopy



(Live) cell  
imaging

Ideally suited for bioanalytical applications!

*metabion*  
IN THIS TOGETHER

**ENJOY THE WAVE!**



Portfolio	Featuring ...	Main application areas
Atto 390	High fluorescence quantum yield, excellent photostability	FISH (Fluorescence In Situ Hybridization), DNA sequencing
Atto 425	High fluorescence intensity, stability in aqueous solutions	Real-time PCR, fluorescence microscopy
Atto 430LS	Large Stokes shift, high water solubility	Multiplex fluorescence assays, protein-DNA interaction studies
Atto 465	Efficient excitation in the blue region, high brightness	SNP (Single Nucleotide Polymorphism) detection, molecular beacons, multicolor labeling experiments, especially in combination with other blue-excitabile dyes
Atto 488	High extinction coefficient, excellent water solubility	Flow cytometry, fluorescence imaging of live cells
Atto 490LS	Extraordinary large Stokes shift, suitable for multicolor experiments	Real-time PCR, multiplex fluorescence detection, suitable for studies involving high degrees of labeling
Atto 495	Strong absorption, good water solubility	DNA microarrays, fluorescent in situ hybridization
Atto 520	Strong absorption in the green part of the spectrum, high quantum yield, good photo-stability	Real-time PCR, single molecule detection, FISH
Atto 532	Excellent photostability, good water solubility	Fluorescence resonance energy transfer (FRET) experiments, Real-time PCR assays for detecting and quantifying DNA sequences
Atto Rho6G	High fluorescence quantum yield, low non-specific binding to biomolecules	Single-molecule detection, fluorescence resonance energy transfer (FRET) experiments
Atto 550	High fluorescence quantum yield, good photostability	Real-time PCR, DNA hybridization assays, Molecular beacons; alternative to NED
Atto 565	High extinction coefficient, strong emission in the red spectrum, robust performance in aqueous environments	Multiplex PCR, live-cell imaging
Atto 590	High brightness, strong absorption in the red region	DNA hybridization assays, fluorescence resonance energy transfer (FRET) studies
Atto Rho13	Low background fluorescence, high quantum yield	Protein-DNA interaction studies, Single-molecule fluorescence studies
Atto Rho14	Broad absorption and emission spectra, minimal quenching effects	FISH, FRET, Multiplexed fluorescence assays
Atto 633	High quantum yield, low background noise	Real-time PCR, in situ hybridization, ideal for confocal microscopy and high-resolution imaging
Atto 647	High extinction coefficient, excellent performance in biological samples	Flow cytometry, FISH
Atto 647N	Extraordinary high fluorescence quantum yield, outstanding pH and photostability	Super-resolution microscopy, single molecule studies; alternative to Cy@5
Atto 655	Strong absorption beyond 650 nm, high brightness, good photostability	Fluorescence imaging, molecular beacons, suitable for in vivo imaging and studies requiring long-term stability
Atto 665	Bright signal and sensitivity in fluorescence-based assays, allows for extended imaging sessions without significant loss of signal	FRET studies to investigate molecular interactions, fluorescence lifetime imaging microscopy (FLIM), flow cytometry for detection and analysis of cell populations including rare cell types